

GE  
Security

## **NetworX<sup>™</sup> Series**





NX-7002N GSM/GPRS module

---

Installation manual



GE imagination at work

Copyright	<p>Copyright © 2009, GE Security B.V. All rights reserved.</p> <p>This document may not be copied or otherwise reproduced, in whole or in part, except as specifically permitted under US and international copyright law, without the prior written consent from GE.</p> <p>Document number/revision: 146306999-2 (June, 2009)</p>
Disclaimer	<p>THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE. GE ASSUMES NO RESPONSIBILITY FOR INACCURACIES OR OMISSIONS AND SPECIFICALLY DISCLAIMS ANY LIABILITIES, LOSSES, OR RISKS, PERSONAL OR OTHERWISE, INCURRED AS A CONSEQUENCE, DIRECTLY OR INDIRECTLY, OF THE USE OR APPLICATION OF ANY OF THE CONTENTS OF THIS DOCUMENT. FOR THE LATEST DOCUMENTATION, CONTACT YOUR LOCAL SUPPLIER OR VISIT US ONLINE AT <a href="http://WWW.GESECURITY.EU">WWW.GESECURITY.EU</a>.</p> <p>This publication may contain examples of screen captures and reports used in daily operations. Examples may include fictitious names of individuals and companies. Any similarity to names and addresses of actual businesses or persons is entirely coincidental.</p>
Trademarks and patents	<p>GE and the GE monogram are registered trademarks of General Electric. NX-7002N product and logo are registered trademarks of GE Security.</p> <p>Other trade names used in this document may be trademarks or registered trademarks of the manufacturers or vendors of the respective products.</p>
Software license agreement	<p>GE software supplied with GE products is proprietary and furnished under license and can be used or copied only in accordance with the license terms.</p> <p>THE ENCLOSED PROGRAM IS FURNISHED SUBJECT TO THE TERMS AND CONDITIONS OF THIS AGREEMENT. RETENTION OF THE PROGRAM FOR MORE THAN 30 DAYS, OPENING OF THE SEALED WRAPPER, IF ANY, SURROUNDING THE PROGRAM, OR USE OF THE PROGRAM IN ANY MANNER WILL BE CONSIDERED ACCEPTANCE OF THE AGREEMENT TERMS. IF THESE TERMS ARE NOT ACCEPTABLE, RETURN THE UNUSED PROGRAM AND ANY ACCOMPANYING DOCUMENTATION TO GE FOR A FULL REFUND OF THE LICENSE FEE PAID. (FOR INFORMATION REGARDING THE RETURN OF PROGRAMS ENCODED OR INCORPORATED WITHIN EQUIPMENT, CONTACT THE NEAREST GE SALES OFFICE.)</p>
Intended use	<p>Use this product only for the purpose it was designed for; refer to the data sheet and user documentation. For the latest product information, contact your local supplier or visit us online at <a href="http://www.gesecurity.eu">www.gesecurity.eu</a>.</p>
European directives	<p><b>1999/5/EC (R&amp;TTE directive):</b> Hereby, GE Security declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.</p> <p><b>2002/96/EC (WEEE directive):</b> Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: <a href="http://www.recyclethis.info">www.recyclethis.info</a>.</p> <p><b>2004/108/EC (EMC directive):</b> European representative for manufacture: GE Security B.V., Kelvinstraat 7, 6003 DH Weert, The Netherlands.</p>
Regulatory	  <div data-bbox="427 1724 646 1792">   </div>

# CONTENTS

<b>CONTENTS .....</b>	<b>3</b>
<b>PREFACE.....</b>	<b>4</b>
<b>GENERAL INFORMATION .....</b>	<b>4</b>
<b>FEATURE DEFINITIONS .....</b>	<b>6</b>
<b>PROGRAMMING THE NX-7002N GPRS MODULE.....</b>	<b>8</b>
PROGRAMMING THE NX-7002N VIA THE LED KEYPAD .....	8
ENTERING THE PROGRAM MODE.....	8
SELECTING THE MODULE TO PROGRAM.....	8
PROGRAMMING A LOCATION.....	8
EXITING A LOCATION.....	8
EXITING THE PROGRAM MODE.....	9
PROGRAMMING THE NX-7002N VIA THE LCD KEYPAD.....	9
PROGRAMMING DATA.....	9
NUMERICAL DATA .....	9
FEATURE SELECTION DATA .....	10
<b>START UP, ENROLLING AND TESTING THE NX-7002N .....</b>	<b>11</b>
INSERTING THE SIM CARD .....	11
ENROLLING THE SIM CARD ON THE GSM NETWORK .....	12
ENROLLING THE SIM CARD ON THE GPRS NETWORK .....	12
TESTING THE RSSI VALUE .....	13
TESTING THE GSM AND GPRS CONNECTION.....	13
<b>PROGRAMMING THE LOCATIONS .....</b>	<b>14</b>
<b>NX-7002N FOR PRIMARY OR BACKUP REPORTING .....</b>	<b>32</b>
NX-7002N FOR PRIMARY REPORTING .....	32
NX-7002N FOR BACKUP REPORTING.....	32
<b>NX-7002N HOME TEXT.....</b>	<b>33</b>
<b>NX-7002N HOME TEXT CONTROL.....</b>	<b>33</b>
<b>NX-7002N SOFTWARE UPGRADE.....</b>	<b>35</b>
<b>NX-7002N PROGRAMMING WORKSHEETS.....</b>	<b>37</b>
<b>INSTALLATION GUIDELINES.....</b>	<b>45</b>
<b>MOUNTING THE NX-7002N .....</b>	<b>45</b>
<b>NX-7002N LAYOUT AND DESCRIPTION .....</b>	<b>46</b>
<b>TECHNICAL SPECIFICATIONS .....</b>	<b>47</b>
NX-7002N TECHNICAL SPECIFICATIONS .....	47
<b>APPENDIX 1: REPORTING FIXED CODES IN CONTACT-ID AND SIA .....</b>	<b>48</b>
<b>APPENDIX 2: OPERATOR ID CODES .....</b>	<b>50</b>

## PREFACE

This is the *NX-7002N Installers manual*. This document includes an overview of the product and detailed instructions explaining:

- how to install and configure the components of your system for the NX-7002N; and
- how to program the system.

To use this document effectively, you should have the following minimum qualifications:

- a basic knowledge of alarm systems and components; and
- a basic knowledge of electrical wiring and low-voltage electrical connections.

Read these instructions and all ancillary documentation entirely before installing or operating this product.

**Note:** A qualified installer, complying with all applicable codes, should perform whatever hardware installation is required.

## GENERAL INFORMATION

The NX-7002N is the GPRS module that can be added to the NetworX range of panels (NX-8E EUR and v2 EUR panels). The NX-7002N GPRS module features include:

- Wireless event reporting.
- 14 configurable report destinations.
- Selectable reportable events from eight partitions.
- Compatible with PSTN or ISDN reporting.
- SIA reporting using TCP/IP over GPRS.
- XSIA reporting using TCP/IP over GPRS.
- Contact ID reporting using TCP/IP over GPRS.
- Contact ID or SIA reporting formats over SMS.
- HomeText (plain language) SMS reporting. The user should have a mobile phone if you are going to set up Home Text SMS.
- SIA reporting with optional partition modifiers using SMS messages.
- XSIA reporting using SMS text messages.
- Control panel can use GSM in addition to PSTN (reporting all panel protocols using GSM).
- Wireless upload/download using GSM CSD connection
- Wireless upload/download using a GPRS connection
- Upload/download may be initiated remotely or locally.
- Optional automatic download sessions. These normally follow test calls.
- Provides backup for the panel and external diallers

The NX-7002N package contains:

- NX-7002N GSM/GPRS module
- 1.5m external antenna
- 2 black PCB guides for mounting
- Audio cable
- Installer manual

The GSM/GPRS module requires a SIM card (not included). In order to obtain all NX-7002N features, the SIM card needs to support:

- Voice channel (event reporting over the voice channel)
- Data channel (up/downloading)
- GPRS (event reporting towards IP receiver over GPRS and/or up/downloading)

Contact your local network provider for more information.

## FEATURE DEFINITIONS

### **CID**

Contact ID reporting protocol.

### **CSD**

Circuit Switched Data. This is the communication used to upload/download data. It is similar to a modem but it is wireless and built in to the NX-7002N (see locations 0, 162 segment 10 and location 168).

### **Concatenated SMSs**

Concatenated or Joined SMSs is an option that sets the maximum number of text messages that can be joined together and sent as a single SMS.

### **GPRS**

General Packet Radio Service. A global standard for wireless communications with a maximum speed of 115 kilobits per second. It supports a range of bandwidths and can transmit and receive both small bursts and large amounts of data.

### **GPRS APN**

GPRS Access Point Name. Contact the network provider to obtain this name. This is a mandatory setting if using TCP/IP reporting (see locations 60 to 63).

### **GPRS Disconnect Delay**

The length of time with no activity before the GPRS disconnects (see location 162 segment 14).

### **GSM**

Global System for Mobile Communications. A global standard for wireless communications with a maximum speed of 9.6 kilobits per second. It supports narrowband Time Division Multiple Access (TDMA).

### **HomeText**

HomeText is a new report format that sends an SMS message of reportable events in plain text to a mobile phone number. The Hometext reports are similar in appearance to the reports you read in the event log from an LCD keypad. Up to eight reporting destinations are used for HomeText.

Up to 16 telephone numbers can be stored and each of them can belong to any combination of the eight HomeText groups. Each phone number must be assigned to one of the 12 available languages that are supported (DE, NL, EN, FI, FR, D, IT, NO, PL, PT, ES, SE).

A HomeText group can be set to one of the report destinations that report specified events. All telephone numbers belonging to a HomeText group will receive SMS messages of reportable events for that group.

### **HomeText Control**

HomeText Control allows via an end-user mobile phone to send/receive SMS messages to/from a security system. Messages can consist of a password, commands and *values*. If set to use a password, the password must be entered before the command. Commands are instructions sent to the security system. Values are information that the user wants to send or receive from the system. See example further down the manual.

### **Non transparent mode**

An intermediate modem is used on the network to transfer data from one modem to another (see location 0 segment 1).

**Operator**

The network operator for the SIM card.

**Polling**

Polling is the process by which the system reports periodically to a receiver to say it is still alive. It works in conjunction with TCP/IP reporting only. Polling is more frequent than a daily test call but less frequent than continuous monitoring. If you configure a very short polling time, polling occurs very frequently and can generate large quantities of data. When setting the polling time, you should consider the speed of the GPRS network and the cost of data transmission. Assuming perfect conditions on a typical GPRS network, the following number of bytes are sent over GPRS. For polling approximately 0.5Kb and for event reporting approximately 0.4Kb + 0.2Kb per event (see location 0, segment 3 and location 162 segment 6).

**PUK code**

Personal Unblocking Key. The code to use to unblock the SIM card. The SIM card can block when an incorrect SIM PIN is entered repeatedly.

**Report control**

A block of reporting data that contains configurations to format selected events into one or more messages according to pre-configured settings and send them to specified destinations (see location 1).

**RSSI**

Received Signal Strength Indicator. This indicates the field signal strength of the NX-7002N (see location 172 and location 162 segment 11 and 12).

**Secondary reporting**

The means of reporting events that the control panel fails to report. When secondary reporting is enabled, the report control set in the NX-7002N will act as a backup for the control panel (see location 25 and location 162 segment 3).

**Up/download call-back from audio**

A CSD communication (Circuit Switched Data) or data communication is the communication used to upload/download via the NX-7002N. If enabled in location 200 an Upload/Download call-back session may be initiated simply by calling the audio number of the SIM card in the NX-7002N and hanging up after 2 to 10 seconds. The NX-7002N will automatically call back to the download PC (set for "Wait for call-back GSM") to start an Upload/Download session. In this way up/download is available while it saves the extra cost of having a CSD or data number from the provider.

**SIM card PUK code**

See *PUK code*

**SMS**

Short Message Service. SMS is a service for sending short text messages to mobile phones (see locations 1, 145, 163, 164, 167).

**Transparent mode**

Data is transferred directly from one modem to another modem (see location 0 segment 1).

# PROGRAMMING THE NX-7002N GPRS MODULE

## Programming the NX-7002N via the LED keypad

### ENTERING THE PROGRAM MODE

To enter the program mode, press [\*]-[8]. At this time, the five function LED's (Stay, Chime, Exit, Bypass and Cancel) will begin to flash. Next, enter the "Go To Program Code" (factory default is [9]-[7]-[1]-[3]). If the "Go To Program Code" is valid, the "Service" LED will flash and the five function LED's will illuminate steady. You are now in the program mode and ready to select the module to program.

**Note:** It is impossible to enter program mode if any partition or the system is armed.

### SELECTING THE MODULE TO PROGRAM

Since all modules connected to the NetworX are programmed through the keypad, the module you are programming should be the first entry. To program the NX-7002N module, enter [7]-[8]-[#]. The [7]-[8] is the module number of the NX-7002N and the [#] is the entry key.

### PROGRAMMING A LOCATION

Once the number of the module to be programmed has been entered, the "Armed" LED will illuminate, indicating it is waiting for a programming location to be entered. Any location can be accessed by directly entering the desired programming location followed by the pound [#] key. If the location entered is a valid location, the "Armed" LED will extinguish, the "Ready" LED will illuminate, and the zone LED's will show the binary data for the first segment of this location. While entering new data, the "Ready" LED will begin flashing to indicate a data change in process. The flashing will continue until the new data is stored by pressing the [\*] key. Upon pressing the [\*] key, the keypad will advance to the next segment and display its data. This procedure is repeated until the last segment is reached. Pressing the [#] key will exit from this location and the "Armed" LED will illuminate again waiting for a new programming location to be entered. If the desired location is the next sequential location, press the [Police] key. If the previous location is desired press the [Fire] key. If the same location is desired press the [Medic] key. To review the data in a location, repeat the above procedure, pressing the [\*] key without any numeric data entry. Each time the [\*] key is pressed, the programming data of the next segment will be displayed for review.

### EXITING A LOCATION

After the last segment of a location is programmed, pressing the [\*] key will exit that location, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location. If an attempt is made to program an invalid entry for a particular segment, the keypad sounder will emit a triple error beep (beep, beep, beep) and remain in that segment awaiting a valid entry.



## EXITING THE PROGRAM MODE

When all the desired changes in programming have been made, it is time to exit the program mode. Pressing the [Exit] key will exit this programming level and then return to the "Select a Module to Program" level. If no additional modules are to be programmed, pressing the [Exit] key again will exit the program mode. If there is a module to be programmed, it may be selected by entering its address followed by the [#] key (see *Selecting the module to program* for more information). The procedure for programming these devices is the same as for the control panel, except the locations will be for the module selected.

**Note:** Each time you exit programming mode, the modem restarts and reads the PIN number, network operator and SMSC address number from the NX-7002N configuration.

## Programming the NX-7002N via the LCD keypad

All steps required for programming are the same as the aforementioned LED keypad. The LCD keypad display will prompt you for the data required. While in the programming mode, and not in a location, the number in parenthesis is the location you were previously changing.

For example, if the display reads "Enter location, then # (5)", it is reminding you that location 5 was the last location you programmed. Refer also to "Programming Data" which follows.

## Programming data

Programming data is always one of two types. One type of data is numerical, which can have values from 0-15 or 0-255 depending on the segment size. The other type of data, feature selection data, is used to turn features on or off. Use the following procedures with these two data types.

### NUMERICAL DATA

Numerical data is programmed by using the numeric keys of the system keypad to enter a number from 0-255. To view the data in a location, a binary process is used. With this process, the LED's for zones 1 through 8 are utilized, and the numeric equivalents of their illuminated LED's are added together to determine the data in a programming location. The numeric equivalents of these LED's are as follows:

Zone 1 LED = 1	Zone 2 LED = 2	Zone 3 LED = 4	Zone 4 LED = 8
Zone 5 LED = 16	Zone 6 LED = 32	Zone 7 LED = 64	Zone 8 LED = 128

**Example:** If the numerical data to be programmed in a location is "66", press [6] - [6] on the keypad. The LED's for zone 2 and zone 7 will become illuminated indicating 66 is in that location ( $2 + 64 = 66$ ).

Once the data is programmed, press the [\*] key to enter the data and advance to the next segment of that location. After the last segment of a location is programmed, pressing the [\*] key will exit that location, turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location. If an attempt is made to program a number too large for a particular segment, the keypad sounder will emit a triple beep, indicating an error, and remain in that segment awaiting a valid entry.

**Remark:** The number in the location will be displayed on the LCD keypad. For locations with a maximum of 15, the hexadecimal equivalent will be displayed in parenthesis.

**Example:** 11 (B) or 14 (E).

## FEATURE SELECTION DATA

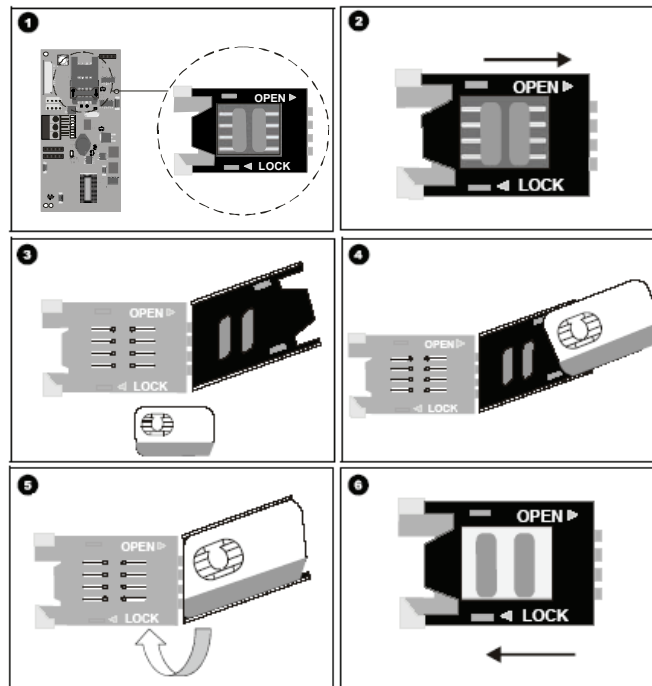
Feature selection data will display the current condition (on or off) of eight features associated with the programming location and segment selected. Pressing a button on the keypad (1 through 8) that corresponds to the "feature number" within a segment will toggle (on/off) that feature. Pressing any numeric key between [1] and [8] for selection of a feature will make the corresponding LED illuminate (feature ON). Press the number again, and the LED will extinguish (feature OFF). You will see that numerous features can be selected from within one segment. For instance, if all eight features of a segment are desired, pressing [1] - [2] - [3] - [4] - [5] - [6] - [7] - [8] will turn on LED's 1 through 8 as you press the keys, indicating that those features are enabled.

**LCD keypad users note:** The numbers of the enabled features will be displayed. However, the features not enabled will display a hyphen (-).

After the desired setting of features is selected for this segment, press the [\*] key. This will enter the data and automatically advance to the next segment of the location. When you are in the last segment of a location and press the [\*] to enter the data, you will exit that location. This will now turn the "Ready" LED off and the "Armed" LED on. As before, you are now ready to enter another programming location.

## START UP, ENROLLING AND TESTING THE NX-7002N

### Inserting the SIM card



**Note:** You must be free of all static electricity when handling electronic components.

- Always power down the system before inserting a SIM Card.
- Locate the SIM card holder **1** on the board.
- Open the SIM card holder by sliding the metal clip as shown in **2** and lifting the holder.
- The SIM card holder opens **3**.
- Slide the SIM card into the holder using the guides. Make sure the contacts (gold pads) face the circuit board and the angled corners face out **4**.
- Ensure the SIM card is inserted correctly in the holder and close the SIM card holder **5**.
- Slide the metal clip back to the original position as shown in **6**.
- Power up the system. Do not enter programming mode until the SIM card selects the network operator. The SIM card automatically selects a network operator when enrolled on the network. To manually select an operator, enter the relevant network operator in location 170. See *Appendix 2: Operator ID Codes* for a list of operator ID codes. Most SIM cards contain a pre-programmed SMS service centre address and under normal circumstances, this should not be changed. If you do need to change it, include the international country prefix using a '+' instead of leading zeros. Program '13' to insert '+' in the address.

## Enrolling the SIM card on the GSM network

- Insert the SIM card. See *Inserting the SIM card* for more information.
- Power up the NX-7002N GPRS module.
- Enter programming mode. See *Programming the NX-7002N GPRS module* for more information.
- Press **78#** to select the module.
- Press **169#** to enter the *GSM SIM PIN code* location.
- Enter the first digit of the SIM PIN code. Press **\*** to move to the next segment. Continue in this way until all digits are programmed. Press **#** to save the changes and exit the location.
- Exit programming mode. The SIM is automatically enrolled on the GSM network.

**Note:** Each time you exit programming mode, the modem restarts and reads the PIN number, network operator and SMSC address number from the NX-7002N configuration.

## Enrolling the SIM card on the GPRS network

- Enter programming mode.
- Press **78#** to select the module.
- Press **169#** to enter the *GSM SIM PIN code* location.
- Enter the first digit of the SIM PIN code. Press **\*** to move to the next segment. Continue in this way until all digits are programmed. Press **#** to save the changes and exit the location.
- Obtain an Access Point Number from the supplier. Press **60#** to enter the *Name of GPRS access point – APN* location. Enter the first digit of the APN. Press **\*** to move to the next segment. Continue in this way until all digits are programmed. Press **#** to save the changes and exit the location.
- (Optional) You may need to enter the PPP password and PPP User ID required by the network. To do this, press **32#** to select the *PPP (dial-up account) user ID* location and program the password. Then press **34#** to select the *PPP (dial-up account) password* location and program the user ID. This step is not usually required.
- Exit programming mode. The SIM PIN is automatically enrolled on the GSM network.

## Testing the RSSI value

During the enrolling procedure, it is mandatory to check the RSSI value (signal strength) of the NX-7002N GPRS module and record it in the system documentation. The RSSI value is linked to the signal level of the GSM network and ranges from 0-31 with 99 as unknown. The RSSI value may change due to environmental circumstances, for example, additional furniture or metal constructions. If an RSSI reading is not satisfactory, move the antenna to get a better reception.

VALUE	DESCRIPTION
Between 1 and 4	The module will not work properly and must be moved to another location.
Between 5 and 9	The module will work but ideally should be moved to another location.
Between 10 and 16	These are normal working values for the module located at a longer distance from the receiver.
Above 17	Perfect conditions.

- Enter programming mode.
- Press **78#** to select the NX-7002N GPRS module.
- Press **172#** to select the *Current GPRS RSSI* location.
- Note the RSSI reading and quit programming.

## Testing the GSM and GPRS connection

- Enter programming mode.
- Press **78#** to select the NX-7002N GPRS module.
- Press **174#** to select the *Device status flags* location.
- Check that the SIM card PIN is not blocked: option 1 and option 2 should be ON.
- Check that the SIM card is logged onto the GSM network: option 3 should be ON.
- Verify if the module is logged into the GPRS network: option 7 should be ON.
- Quit programming mode.

See *NX-7002N layout and description* for an overview of the different Status LED's on the NX-7002N.

## PROGRAMMING THE LOCATIONS

### LOCATION 0

#### MODULE MODE OF OPERATION FEATURE SELECTION (8 segments)

This location contains the system characteristics.

- |                    |  |
|--------------------|--|
| <b>Segment 1</b>   | <p>1 = Enable site initiated downloading (*98 from a keypad)</p> <p>2 = Enable remote initiated downloading<br/><i>This setting enables the PC to dial into the NX-7002N. It is dependent on other settings (segment 3, 5 and 6).</i></p> <p>3 = Remote initiated download must be from known source<br/><i>If enabled, program the phone number of the PC in location 168.</i></p> <p>4 = Enable remote download at test time<br/><i>This setting configures the NX-7002N to automatically dial the PC to initiate an upload/download session after an autotest. You must program the autotest in the control panel.</i></p> <p>5 = Enable auto-answer incoming CSD GSM download call.<br/><i>If enabled, the NX-7002N will automatically accept an incoming call. If disabled, the user needs to accept an incoming call (*99) as soon as a "ding-dong" is heard on the keypad.</i></p> <p>6 = Callback required for incoming CSD GSM download call<br/><i>If enabled, the NX-7002N will call back to the PC before starting an up/download session.</i></p> <p>7 = Use V.110 for site-initiated CSD GSM calls<br/><i>Enable this setting if the PC is on an ISDN line and is using an ISDN modem.</i></p> <p>8 = Use non-transparent mode for site initiated CSD GSM calls<br/><i>If you are experiencing problems with upload/download, change this setting from transparent mode to non-transparent mode or vice versa.</i></p> |
| <b>Segment 2</b>   | <p>1 = Use SIA DCS as backup format (Contact ID if off)<br/><i>This setting selects the reporting format when using another device as backup. The same format must be set on the backup device.</i></p> <p>2-8 Reserved</p>  |
| <b>Segment 3</b>   | <p>1 = Reserved</p> <p>2 = Polling enable for TCP/IP (for UL AA)<br/><i>If polling is enabled, set the polling period in location 162, segment 6.</i></p> <p>3-8 Reserved</p>  |
| <b>Segment 4</b>   | <p>1-3 Reserved</p> <p>4 = On : TCP/IP reporting in SIA<br/>Off : TCP/IP reporting in Contact ID</p> <p>5-6 Reserved</p> <p>7 = Enable 3-DES encryption. DO NOT disable this option.</p> <p>8 = On : Up/Downloading using GSM CSD<br/>Off : Up/downloading using GSM GPRS</p>  |
| <b>Segment 5-8</b> | Reserved   |

## LOCATION 1

### DESTINATION SELECTION FOR REPORT CONTROL 1 (1 segment)

The NX-7002N contains up to 14 report controls : 2 for SMS reporting, 2 for TCP/IP reporting and 2 for email reporting (not yet available). HomeText SMS reporting (plain language) can use a maximum of eight report controls. This location contains the report destination for report control 1. Select from the table below.

DATA	FORMAT	DESCRIPTION
0	Disabled	Report control 1 is disabled
1	TCP/IP 1	Reporting to TCP/IP receiver 1
2	TCP/IP 2	Reporting to TCP/IP receiver 2
3	Email 1	Email Reporting to Email Account 1 (not yet available)
4	Email 2	Email Reporting to Email Account 2 (not yet available)
5	SMS 1	SMS Reporting to Mobile Phone 1
6	SMS 2	SMS Reporting to Mobile Phone 2
7-15	Reserved	
16	Hometext 1	Hometext SMS reporting to group 1
17	Hometext 2	Hometext SMS reporting to group 2
18	Hometext 3	Hometext SMS reporting to group 3
19	Hometext 4	Hometext SMS reporting to group 4
20	Hometext 5	Hometext SMS reporting to group 5
21	Hometext 6	Hometext SMS reporting to group 6
22	Hometext 7	Hometext SMS reporting to group 7
23	Hometext 8	Hometext SMS reporting to group 8

## LOCATION 2

### BACKUP DESTINATION SELECTION FOR REPORT CONTROL 1 (1 segment)

If the primary destination selection (location 1) fails, a backup destination can be selected. If you are using another device as the backup destination, for example, panel dialler, set the reporting format (SIA or CID) in location 0, segment 2, option 1 and enable test report events for the backup device. This location contains the backup report destination for report control 1. Select from the table below.

DATA	FORMAT	DESCRIPTION
0	Disabled	Backup Report control 1 is disabled
1	TCP/IP 1	Backup Reporting to TCP/IP receiver 1
2	TCP/IP 2	Backup Reporting to TCP/IP receiver 2
3	Email 1	Backup Email Reporting to Email Account 1 (not yet available)
4	Email 2	Backup Email Reporting to Email Account 2 (not yet available)
5	SMS 1	Backup SMS Reporting to Mobile Phone 1
6	SMS 2	Backup SMS Reporting to Mobile Phone 2
7-15	Reserved	
16	Hometext 1	Backup Hometext SMS reporting to group 1
17	Hometext 2	Backup Hometext SMS reporting to group 2
18	Hometext 3	Backup Hometext SMS reporting to group 3
19	Hometext 4	Backup Hometext SMS reporting to group 4
20	Hometext 5	Backup Hometext SMS reporting to group 5
21	Hometext 6	Backup Hometext SMS reporting to group 6
22	Hometext 7	Backup Hometext SMS reporting to group 7
23	Hometext 8	Backup Hometext SMS reporting to group 8
24-254	Reserved	
255	Other dialler	The NX-7002N is not used as backup. Instead another dialler is used (for example: panel dialler)

## LOCATION 3

### REPORT DELAY FOR REPORT CONTROL 1 (1 segment)

The delay in seconds before the NX-7002N GPRS module reports. If any other events occur during this delay, they are sent with the first event in one message if using SMS reporting. This does not apply if using TCP/IP reporting (it does not support multiple events in one message). This can be from 0 to 255 seconds.

#### LOCATION 4      **EVENT SELECTION FOR REPORT CONTROL 1 BY PARTITION (16 segments, feature selection data)**

All events for report control 1 are enabled by default. Select the partition(s) to include in the event report. Enabled events are formatted into one or more messages according to pre-configured settings and sent to the selected report destination. Enable the Test Reports event group if using the NX-7002N as backup to another auxiliary dialler.

<b>Segment 1</b>	Alarms (and Restores)
<b>Segment 2</b>	Open / Close
<b>Segment 3</b>	Bypass
<b>Segment 4</b>	Zone trouble
<b>Segment 5</b>	Power trouble (AC failure and Low Battery)
<b>Segment 6</b>	Siren & Line Fault
<b>Segment 7</b>	Test Report
<b>Segment 8</b>	Program, Download & Log full
<b>Segment 9</b>	Tamper
<b>Segment 10</b>	Short Circuit
<b>Segment 11</b>	Sensor Lost
<b>Segment 12</b>	Sensor Low Battery
<b>Segment 13</b>	Expander Trouble
<b>Segment 14</b>	Fail To Communicate
<b>Segment 15</b>	Zone Activity Monitoring
<b>Segment 16</b>	Reserved

#### LOCATION 5      **DESTINATION SELECTION FOR REPORT CONTROL 2 (1 segment)**

This location contains the report destination for report control 2. See location 1.

#### LOCATION 6      **BACKUP DESTINATION SELECTION FOR REPORT CONTROL 2 (1 segment)**

This location contains the backup report destination for report control 2. See location 2.

#### LOCATION 7      **REPORT DELAY FOR REPORT CONTROL 2 (1 segment)**

The delay in seconds before the NX-7002N GPRS module reports to report control 2. See location 3.

#### LOCATION 8      **EVENT SELECTION FOR REPORT CONTROL 2 BY PARTITION (16 segments, feature selection data)**

All events for report control 2 are disabled by default. See location 4.

#### LOCATION 9      **DESTINATION SELECTION FOR REPORT CONTROL 3 (1 segment)**

This location contains the report destination for report control 3. See location 1.

#### LOCATION 10      **BACKUP DESTINATION SELECTION FOR REPORT CONTROL 3 (1 segment)**

This location contains the backup report destination for report control 3. See location 2.

#### LOCATION 11      **REPORT DELAY FOR REPORT CONTROL 3 (1 segment)**

The delay in seconds before the NX-7002N GPRS module reports to report control 3. See location 3.



- LOCATION 12**      **EVENT SELECTION FOR REPORT CONTROL 3 BY PARTITION (16 segments, feature selection data)**
- All events for report control 3 are disabled by default. See location 4.
- LOCATION 13**      **DESTINATION SELECTION FOR REPORT CONTROL 4 (1 segment)**
- This location contains the report destination for report control 4. See location 1.
- LOCATION 14**      **BACKUP DESTINATION SELECTION FOR REPORT CONTROL 4 (1 segment)**
- This location contains the backup report destination for report control 4. See location 2.
- LOCATION 15**      **REPORT DELAY FOR REPORT CONTROL 4 (1 segment)**
- The delay in seconds before the NX-7002N GPRS module reports to report control 4. See location 3.
- LOCATION 16**      **EVENT SELECTION FOR REPORT CONTROL 4 BY PARTITION (16 segments, feature selection data)**
- All events for report control 4 are disabled by default. See location 4.
- LOCATION 17**      **DESTINATION SELECTION FOR REPORT CONTROL 5 (1 segment)**
- This location contains the report destination for report control 5. See location 1.
- LOCATION 18**      **BACKUP DESTINATION SELECTION FOR REPORT CONTROL 5 (1 segment)**
- This location contains the backup report destination for report control 5. See location 2.
- LOCATION 19**      **REPORT DELAY FOR REPORT CONTROL 5 (1 segment)**
- The delay in seconds before the NX-7002N GPRS module reports to report control 5. See location 3.
- LOCATION 20**      **EVENT SELECTION FOR REPORT CONTROL 5 BY PARTITION (16 segments, feature selection data)**
- All events for report control 5 are disabled by default. See location 4.
- LOCATION 21**      **DESTINATION SELECTION FOR REPORT CONTROL 6 (1 segment)**
- This location contains the report destination for report control 6. See location 1.
- LOCATION 22**      **BACKUP DESTINATION SELECTION FOR REPORT CONTROL 6 (1 segment)**
- This location contains the backup report destination for report control 6. See location 2.
- LOCATION 23**      **REPORT DELAY FOR REPORT CONTROL 6 (1 segment)**
- The delay in seconds before the NX-7002N GPRS module reports to report control 6. See location 3.

**LOCATION 24      EVENT SELECTION FOR REPORT CONTROL 6 BY PARTITION (16 segments, feature selection data)**

All events for report control 6 are disabled by default. See location 4.

**LOCATION 25      PRIMARY REPORTING FLAG FOR REPORT CONTROLS (1 segment)**

The NX-7002N contains up to six report controls. Turn on the relevant option to enable primary reporting for that report control. Turn off the option to enable secondary reporting for that report control. When secondary reporting is enabled, the report control acts as a backup for the control panel.

- Segment 1**
- 1 =    On: Report Control 1 acts as Primary Reporting;  
         Off: Report Control 1 acts as Secondary Reporting
  - 2 =    On: Report Control 2 acts as Primary Reporting;  
         Off: Report Control 2 acts as Secondary Reporting
  - 3 =    On: Report Control 3 acts as Primary Reporting;  
         Off: Report Control 3 acts as Secondary Reporting
  - 4 =    On: Report Control 4 acts as Primary Reporting;  
         Off: Report Control 4 acts as Secondary Reporting
  - 5 =    On: Report Control 5 acts as Primary Reporting;  
         Off: Report Control 5 acts as Secondary Reporting
  - 6 =    On: Report Control 6 acts as Primary Reporting;  
         Off: Report Control 6 acts as Secondary Reporting
  - 7-8    Reserved

**LOCATION 26 –  
LOCATION 31      RESERVED**

**LOCATION 32      PPP (dial-up account) USER ID, characters 1 - 16 (16 segments)**

Optional if using TCP/IP reporting. Contact the network provider to confirm if a PAP login is required and to obtain the user ID and password.

**LOCATION 33      PPP (dial-up account) USER ID, characters 17 - 32 (16 segments)**

See location 32.

**LOCATION 34      PPP (dial-up account) PASSWORD, 16 characters (16 segments)**

See location 32.

**LOCATION 35 –  
LOCATION 59      RESERVED**

**LOCATION 60      NAME OF GPRS ACCESS POINT - APN, characters 1 - 16 (16 segments)**

This is a mandatory setting if using TCP/IP reporting. Contact the network provider to obtain the GPRS access point name.

**LOCATION 61      NAME OF GPRS ACCESS POINT - APN, characters 17 - 32 (16 segments)**

See location 60.

---

<b>LOCATION 62</b>	<b>NAME OF GPRS ACCESS POINT - APN, characters 33 - 48 (16 segments)</b>  See location 60.
<b>LOCATION 63</b>	<b>NAME OF GPRS ACCESS POINT - APN, characters 49 - 64 (16 segments)</b>  See location 60.
<b>LOCATION 64 - LOCATION 100</b>	<b>RESERVED</b>
<b>LOCATION 101</b>	<b>DHCP ASSIGNED IP ADDRESS (4 segments)</b>  When the NX-7002N logs into the GPRS network, it is automatically assigned to an IP address. This location is a read-only location.
<b>LOCATION 102</b>	<b>IP ADDRESS FOR TCP/IP RECEIVER 1 (4 segments)</b>  If using TCP/IP reporting, enter in this location the IP address of the receiver 1.
<b>LOCATION 103</b>	<b>IP ADDRESS FOR TCP/IP RECEIVER 2 (4 segments)</b>  If using TCP/IP reporting, enter in this location the IP address of the receiver 2.
<b>LOCATION 104 - LOCATION 108</b>	<b>RESERVED</b>
<b>LOCATION 109</b>	<b>IP ADDRESS FOR DOWNLOAD COMPUTER (4 segments)</b>  If Up/Downloading over GPRS is required, enter in this location the IP address of the download computer running the DL900.
<b>LOCATION 110 - LOCATION 118</b>	<b>RESERVED</b>
<b>LOCATION 119</b>	<b>RECEIVER ALARM AND POLL PORT (4 segments)</b>  The number of the TCP/IP port to which polling and alarms are reported. The default port is 9999 and under normal circumstances should not be changed.
<b>LOCATION 120</b>	<b>RECEIVER DOWNLOAD PORT PORT (4 segments)</b>  The number of the TCP/IP port used for Up/Downloading. The default port is 9998 and under normal circumstances should not be changed.
<b>LOCATION 121 - LOCATION 138</b>	<b>RESERVED</b>
<b>LOCATION 139</b>	<b>TCP/IP 1 ACCOUNT NUMBER (8 segments)</b>  The SIA or Contact ID account number used for reporting towards the TCP/IP receiver. SIA account numbers are 6 digits long. Contact ID account numbers are 4 digits long. Add leading zeros to create an 8-digit number.
<b>LOCATION 140</b>	<b>TCP/IP 1 RECEIVER NUMBER (4 segments)</b>  The phone line receiver number associated with the TCP/IP 1 account.

---

<b>LOCATION 141</b>	<b>TCP/IP 1 LINE NUMBER (4 segments)</b>  The line number associated with the TCP/IP 1 account. Enter the account number and destination number for the receiver.
<b>LOCATION 142</b>	<b>TCP/IP 2 ACCOUNT NUMBER (8 segments)</b>  See location 139.
<b>LOCATION 143</b>	<b>TCP/IP 2 RECEIVER NUMBER (4 segments)</b>  See location 140.
<b>LOCATION 144</b>	<b>TCP/IP 2 LINE NUMBER (4 segments)</b>  See location 141.
<b>LOCATION 145</b>	<b>SMS 1 ACCOUNT NUMBER (8 segments)</b>  The SIA account number used for SMS reporting. SIA account numbers are 6 digits long. Enter the first digit of the SIM PIN code in segment 3 (segment 1 and 2 are not used). Press * to move to the next segment. Continue in this way until all digits are programmed.
<b>LOCATION 146</b>	<b>SMS 2 ACCOUNT NUMBER (8 segments)</b>  See location 145.
<b>LOCATION 147 – LOCATION 153</b>	<b>RESERVED</b>
<b>LOCATION 154</b>	<b>ACCOUNT NUMBER FOR PARTITION 1 (8 segments)</b>  The account code sent when partition 1 is reported. Use when a different account code for each partition is required. When there is also an account code set for each report destination (see location 139/142/145/146), the partition account code takes precedence.
<b>LOCATION 155</b>	<b>ACCOUNT NUMBER FOR PARTITION 2 (8 segments)</b>  See location 154.
<b>LOCATION 156</b>	<b>ACCOUNT NUMBER FOR PARTITION 3 (8 segments)</b>  See location 154.
<b>LOCATION 157</b>	<b>ACCOUNT NUMBER FOR PARTITION 4 (8 segments)</b>  See location 154.
<b>LOCATION 158</b>	<b>ACCOUNT NUMBER FOR PARTITION 5 (8 segments)</b>  See location 154.
<b>LOCATION 159</b>	<b>ACCOUNT NUMBER FOR PARTITION 6 (8 segments)</b>  See location 154.

**LOCATION 160 ACCOUNT NUMBER FOR PARTITION 7 (8 segments)**

See location 154.

**LOCATION 161 ACCOUNT NUMBER FOR PARTITION 8 (8 segments)**

See location 154.

**LOCATION 162 TIMERS AND COUNTERS (16 segments, numerical data)**

Location 162 contains the duration of various system timing functions.

- Segment 1** Max Number of network attempts  
*The number of report attempts the NX-7002N GPRS module makes to send a report. This can be from 0 to 15.*
- Segment 2** Report attempts for FTC  
*The number of attempts that can be made to a specific report destination before the Fail to Communicate condition is set. This can be from 1 to 15.*
- Segment 3** Maximum reports in 24 hours (TCP/IP and SMS)  
*The NX-7002N GPRS module stops reporting messages when the number of messages in a 24-hour time frame exceeds this number. This can be from 1 to 255. If set to 0, there is no limitation.*
- Segment 4** Time in seconds for overall network attempt  
*The maximum length of time for each attempt by the NX-7002N to report to each receiver. If the report is not successful during this time, the attempt is abandoned. This can be from 0 to 255 seconds.*
- Segment 5** Reserved
- Segment 6** TCP/IP Polling time in minutes/hours  
*This setting must match the TCP/IP polling time set on a TCP/IP receiver. The setting on the TCP/IP receiver is determined by the speed of the GPRS network and cost of data transmission. This can be from 1 to 255. If set to 0, the setting is disabled. Set location 200 segment 2 option 7 to enable polling time in hours.*
- Segment 7** Maximum time for PPP dialup session in minutes
- Segment 8** Maximum number of PPP dial attempts (alternating 1&2)
- Segment 9** Reserved
- Segment 10** Baud rate for CSD/GSM download  
*This setting must match the baud rate set on the PC modem. 4=2400 Baud, 5=4800 Baud, 6=9600 Baud.  
NOTE: The modem of the DL900 PC must be configured correctly. In the DL900, select Program-Setup-GSM modem setup and enter S7=60S10=255X0T+MS=9,1,9600,9600 in the 'Initialization string 2' field*
- Segment 11** GSM line fault RSSI threshold  
*The acceptable level of the RSSI signal. If the signal falls below this level for the amount of time set in segment 12, a line fault is generated. This can be from 1 to 31. If set to 0, the setting is disabled.*
- Segment 12** GSM line fault time  
*The length of time the RSSI signal must be below the RSSI threshold before a line fault is generated. This can be from 0 to 255 seconds.*
- Segment 13** Control reporting timeout for secondary reporting  
*The maximum time during which the control panel must report an event. If the NX-7002N report control (SMS or TCP/IP report control) is set for secondary reporting and the control panel does not report the event during this time, the report control reports the event. This can be from 1 to 255 seconds. If set to 0, the setting is disabled.*
- Segment 14** GPRS disconnect delay in seconds  
*The length of time with no activity before the GPRS disconnects. This can be from 0 to 254. 255 = Stay connected.*

- Segment 15** Maximum Download authentication attempts.  
*Number of attempts the U/D PC will check the download code before blocking the NX-7002N for the time set in segment 16.*
- Segment 16** Download authorisation disable time in minutes.  
*This can be from 1 to 60.*

**LOCATION 163 SMS 1 PHONE NUMBER (20 segments)**

The phone number to which SMS reports are sent. This phone number is independent from the phone numbers programmed in the control panel. "14" indicates the end of the phone number. Program "11" to insert "\*" in the phone number, program "12" to insert "#" and program "13" to insert "+". It is recommended to add the country prefix before the number. For example, +32 followed by the phone number.

**LOCATION 164 SMS 1 FORMAT (1 segment)**

The communicator format used to transmit to the SMS 1 report destination from the NX-7002N GPRS module. Consult the instructions for your central station receiver to determine which format is compatible. SIA reporting over SMS can be set to one of three modes. Contact ID reporting over SMS contains one event only. The information in the message is the same as a CID message sent over PSTN with the digits coded using ASCII instead of DTMF.

DATA	FORMAT
0	SIA Separate Events
1	SIA Combined Events
2	SIA with Partition Modifier
3	Contact ID

If "0" (SIA Separate Events) is selected, messages are sent using the syntax:

**>aaaaaa eennn [eennn ...].**

For example, >123456 BA001

If "1" (SIA Combined Events) is selected, messages are sent using the syntax:

**>aaaaaa eennn [eennn ...] [/aaaaaa eennn [eennn ...]...].**

For example, >123456 BA001/987654 YT000/345678 TA030

If "2" (SIA with Partition Modifier) is selected, messages are sent using the syntax:

**>aaaaaa eennn[/Rin] [eennn[/Rin] ...].**

For example, > 987654 BA001/Ri1 BA003/Ri1 YT000 TA030/Ri3.

**Syntax Description :**

- > The message opening character.
- aaaaaa A six-digit account code.
- ee A two-digit SIA code.
- nnn A three-digit number, e.g. zone number.

Rin	Partition modifier, 'Ri' is literal, n is the partition or partition number.
.	The message closing character.
/	Separator
[X]	X is optional
[X ...]	X is optional and may be repeated one or more times.

If "3" (Contact ID) is selected, messages are sent using the syntax :

**aaaa18qnnnggppp**

For example, E9D318113701010

#### **Syntax Description :**

aaaa	A four-digit account code. Hexadecimal digits A-F are in upper case.
18	To indicate that this is a Contact ID message
q	Contact ID Qualifier. '1' = activation, '3' = restore
nnn	Three-digit Contact ID event number (decimal).
gg	Two-digit group number (decimal). This contains the partition that generated the event or 0 for a non-partition event.
ppp	Three-digit point number (decimal). This contains the zone, user or module number for the event.

#### **LOCATION 165 SMS 2 PHONE NUMBER (20 segments)**

See location 163.

#### **LOCATION 166 SMS 2 FORMAT (1 segment)**

See location 164.

**Note: By default, not more than 20 SMS messages will be transmitted in a 24 hour time period. If needed, this number can be changed (see location 162 segment 3).**

#### **LOCATION 167 SMS SERVICE CENTRE NUMBER (20 segments)**

This number is mandatory when SMS reporting is used. Usually the SIM card automatically dials this number. "14" indicates the end of the phone number. Program "11" to insert "\*" in the phone number, program "12" to insert "#" and program "13" to insert "+". It is recommended to add the country prefix before the number. For example, +32 followed by the number.

#### **LOCATION 168 UPLOAD/DOWNLOAD PHONE NUMBER (FOR CSD GSM) (20 segments)**

This number is mandatory if up/downloading via the NX-7002N is required using the call-back feature. An Up/download call will use the data channel. Contact your network provider to enable the data channel of your SIM card. If the SIM card does not support the data channel, an up/download session can be initiated via a simple call towards the SIMS card's "normal"

telephone number (voice channel) and hang up. The NX-7002N will call back towards the download PC via the data channel if enabled in location 200.

In this location, program the call-back number. "14" indicates the end of the phone number. Program "11" to insert "\*" in the phone number, program "12" to insert "#" and program "13" to insert "+".

#### **LOCATION 169      GSM SIM PIN CODE (8 segments)**

Enter the SIM pin code in this location. A "10" indicates the end of the code.

#### **LOCATION 170      GSM OPERATOR SELECTION (6 segments)**

The network operator ID code. Set this to 00000 to allow the SIM card automatically select a network operator. Alternatively, enter an operator ID code in this location to manually select a network operator. If using a 5-digit code, enter 'A' or '10' after the code. Appendix 2 lists all network operators and ID codes. An invalid selection or unreachable network will prevent location 174, segment 3 turning on.

#### **LOCATION 171      CURRENT GSM OPERATOR (READ ONLY) (1 segment)**

This location will show the name of the automatically or manually selected GSM network operator. This location is read only and only valid when the NX-7002N is logged into the GSM network. See *Appendix 2: Operator ID Codes* for a detailed list of operators.

#### **LOCATION 172      CURRENT GSM RSSI (READ ONLY) (1 segment)**

This location will show the RSSI (Received Signal Strength Indicator) value. The RSSI value is periodically updated when logged into the network. RSSI values range from 0 to 31 with 99 as unknown. See *Testing the RSSI value* for more information.

#### **LOCATION 173      CURRENT GPRS BIT ERROR RATE % (READ ONLY) (1 segment)**

This location will show the BER (Bit Error Rate) value in %. The BER value is periodically updated when logged into the network. BER values range from 0 to 7 with 99 as unknown.

#### **LOCATION 174      DEVICE STATUS FLAGS (2 segments)**

This location contains specific status information of the GSM/GPRS module. If the option is "On", the status condition is true.

- |                  |   |
|------------------|---|
| <b>Segment 1</b> | 1 =    On: Communication with GSM modem OK<br>2 =    On: SIM card PIN is OK<br>3 =    On: Logged in to the GSM network<br>4 =    On: Sending SMS<br>5 =    On: Using GSM audio connection<br>6 =    On: Using GSM CSD connection<br>7 =    On: Connected to GPRS network<br>8 =    On: SIM card PUK code required   |
| <b>Segment 2</b> | 1 =    On: Battery voltage failure<br><i>The NX-7002N measures and monitors battery voltage. It shares a battery with the control panel.</i><br>2 =    On: GSM PSU voltage failure<br><i>The main battery creates a 3.8 V power supply for the GPRS modem.</i><br>3 =    On: Bus voltage failure<br><i>The bus supplies a 13.8 V voltage to the NX-7002N.</i> |



- 4 = On : Communication channel failure
- 5 = On : Up/download session in progress
- 6 = On : Up/download session starting
- 7 = On : Reporting in Progress
- 8 = On : RSSI level at acceptable level

- Segment 3**
- 1 = On: Maximum reports in 24 hours reached
  - 2-8 Reserved

**LOCATION 175 GSM MODEM MANUFACTURER (READ ONLY) (16 segments)**

This location displays the manufacturer of the GSM/GPRS modem used on the NX-7002N.

**LOCATION 176 GSM MODEM MODEL (READ ONLY) (16 segments)**

This location displays the model of GSM/GPRS modem used on the NX-7002N.

**LOCATION 177 GSM MODEM SOFTWARE REVISION (READ ONLY) (16 segments)**

This location displays the software revision of the GSM/GPRS modem used on the NX-7002N.

**LOCATION 178 GSM MODEM SERIAL NUMBER (READ ONLY) (16 segments)**

This location displays the serial number of the GSM/GPRS modem used on the NX-7002N.

**LOCATION 179 –  
LOCATION 199 RESERVED**

**LOCATION 200 MISCELLANEOUS FEATURE SELECTION (8 segments)**

**Segment 1** Reserved

- Segment 2**
- 1= Enables HomeText Control.
  - 2= Allows Home Text Control using Registered phones only.  
On : only commands from registered phone numbers are accepted  
Off : commands from any phone number are accepted
  - 3= Home Text Control requires Password.  
On : A password must be included with the HomeText message  
Off : A Password only required for HomeText messages from unregistered phone(s)  
*Passwords must be between 6 and 16 characters and contain at least one number between 0-9. They should only have alphabetic numbers and no spaces. See locations 248 – 263.*
  - 4= NX-7002N will forward unrecognized received SMS messages to the Administrator Phone (= Phone number 1).
  - 5= NX-7002N will initiate an up/download session via call-back when audio call is detected.
  - 6= Enable XSIA reporting for SIA over all media types.
  - 7= On : TCP/IP polling time in hours.  
Off : TCP/IP polling time in minutes.
  - 8= Reserved

- Segment 3**
- 1= Disable GSM/GPRS Line Fault indication on keypad
  - 2= Disable GSM/GPRS Line Fault reporting
  - 3= Send RSSI combined with test call
  - 4-8 Reserved

**Segment 4-8** Reserved

**LOCATION 201 RESERVED**

**LOCATION 202 MISCELLANEOUS FEATURE SELECTION (3 segments)**

**Segment 1** Number of bad attempts per phone before HomeText control is disabled for that phone. Default is 5.

**Segment 2 LCD keypad address for zone text**  
When using the HomeText reporting format, the system requires at least 1 LCD keypad. The NX-7002N will get the zone descriptions from the first language from that LCD keypad which has the address defined in this location. If your system has an LCD keypad it is recommended that it will be placed in location 1 keypad 1. This will allow this location to be left at the factory default (192). If the LCD keypad is selected as something other than partition 1 / keypad 1, program the appropriate address from the location chart below.

Keypad	Part 1	Part 2	Part 3	Part 4	Part 5	Part 6	Part 7	Part 8
1	192	193	194	195	196	197	198	199
2	200	201	202	203	204	205	206	207
3	208	209	210	211	212	213	214	215
4	216	217	218	219	220	221	222	223
5	224	225	226	227	228	229	230	231
6	232	233	234	235	236	237	238	239
7	240	241	242	243	244	245	246	247
8	248	249	250	251	252	253	254	255

**Segment 3** Reserved

**LOCATION 203 TIME FOR RSSI LINE FAULT RESTORE**  
In this location an additional number of minutes can be entered before the RSSI line fault restore event will be reported.

**LOCATION 204 - 215 RESERVED**

**LOCATION 216 SOFTWARE VERSION NUMBER**  
This location will show the software version of the module (x.xx)

**LOCATION 217 - 224 RESERVED**

**LOCATION 225 HOMETEXT SITE ADDRESS characters 1-16 (16 segments)**  
This location is used to make a site address easily identifiable by naming it. The site address name appears at the beginning of each report you receive from HomeText.

**LOCATION 226 HOMETEXT SITE ADDRESS characters 17-32 (16 segments)**  
See location 225.

- LOCATION 227 HOMETEXT USER NUMBER FOR PHONES 1 – 16 (16 segments)**  
For HomeText Control, a user number must be assigned to each phone number. If HomeText phone number 1 is assigned to user number 1, a command from that phone number will be logged as User 1. Example : an Arm command from HomeText phone number 1, will arm the system as User 1. **Note : the user number for phone number 1 must always be '1' (master) in order to have HomeText Control to work properly.**
- LOCATION 228 HOMETEXT REPORT GROUPS FOR PHONES 1 - 16 (16 segments)**  
A HomeText report group can be programmed to report specific events to dedicated phone numbers. Ex. : technical events can be send to service phone numbers while alarm events are send to the phone number of the owner. Segments 1 to 16 correspond to HomeText phone numbers 1 to 16 (see location 232). All phone numbers assigned to a HomeText group will receive SMS messages of reportable events for that group. Any combination of groups can be set. By default phone numbers 1 to 16 are assigned to HomeText group 1.
- LOCATION 229 MAXIMUM NUMBER OF CONCATENATED SMS MESSAGES FOR SENDING HOMETEXT MESSAGES FOR PHONES 1 - 16**  
This sets the number of concatenated (joined together) SMS's for sending Hometext reports. The maximum number of concatenated SMS messages is 5. Default is set to 4.
- LOCATION 230 - 231 RESERVED**
- LOCATION 232 HOMETEXT PHONE NUMBER 1 (20 segments)**  
This sets phone number 1 to which HomeText reports are sent. "14" indicates the end of the phone number. Program "11" to insert "\*" in the phone number, program "12" to insert "#" and program "13" to insert "+". It is recommended to add the country prefix before the number. For example +32 followed by the phone number. Phone number 1 does also act as Admin phone. See location 200.
- LOCATION 233 HOMETEXT PHONE NUMBER 2 (20 segments)**  
This sets phone number 2 to which HomeText reports are sent. See location 232.
- LOCATION 234 HOMETEXT PHONE NUMBER 3 (20 segments)**  
This sets phone number 3 to which HomeText reports are sent. See location 232.
- LOCATION 235 HOMETEXT PHONE NUMBER 4 (20 segments)**  
This sets phone number 4 to which HomeText reports are sent. See location 232.
- LOCATION 236 HOMETEXT PHONE NUMBER 5 (20 segments)**  
This sets phone number 5 to which HomeText reports are sent. See location 232.
- LOCATION 237 HOMETEXT PHONE NUMBER 6 (20 segments)**  
This sets phone number 6 to which HomeText reports are sent. See location 232.
- LOCATION 238 HOMETEXT PHONE NUMBER 7 (20 segments)**  
This sets phone number 7 to which HomeText reports are sent. See location 232.
- LOCATION 239 HOMETEXT PHONE NUMBER 8 (20 segments)**  
This sets phone number 8 to which HomeText reports are sent. See location 232.

<b>LOCATION 240</b>	<b>HOMETEXT PHONE NUMBER 9 (20 segments)</b> This sets phone number 9 to which HomeText reports are sent. See location 232.
<b>LOCATION 241</b>	<b>HOMETEXT PHONE NUMBER 10 (20 segments)</b> This sets phone number 10 to which HomeText reports are sent. See location 232.
<b>LOCATION 242</b>	<b>HOMETEXT PHONE NUMBER 11 (20 segments)</b> This sets phone number 11 to which HomeText reports are sent. See location 232.
<b>LOCATION 243</b>	<b>HOMETEXT PHONE NUMBER 12 (20 segments)</b> This sets phone number 12 to which HomeText reports are sent. See location 232.
<b>LOCATION 244</b>	<b>HOMETEXT PHONE NUMBER 13 (20 segments)</b> This sets phone number 13 to which HomeText reports are sent. See location 232.
<b>LOCATION 245</b>	<b>HOMETEXT PHONE NUMBER 14 (20 segments)</b> This sets phone number 14 to which HomeText reports are sent. See location 232.
<b>LOCATION 246</b>	<b>HOMETEXT PHONE NUMBER 15 (20 segments)</b> This sets phone number 15 to which HomeText reports are sent. See location 232.
<b>LOCATION 247</b>	<b>HOMETEXT PHONE NUMBER 16 (20 segments)</b> This sets phone number 16 to which HomeText reports are sent. See location 232.
<b>LOCATION 248</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 1 (16 segments)</b> This location contains the password for HomeText Phone Number 1. The password must be between 6 and 16 characters and contain at least one number between 0-9. They should only have alphabetic numbers and no spaces.
<b>LOCATION 249</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 2 (16 segments)</b> This location contains the password for HomeText Phone Number 2. See location 248.
<b>LOCATION 250</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 3 (16 segments)</b> This location contains the password for HomeText Phone Number 3. See location 248.
<b>LOCATION 251</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 4 (16 segments)</b> This location contains the password for HomeText Phone Number 4. See location 248.
<b>LOCATION 252</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 5 (16 segments)</b> This location contains the password for HomeText Phone Number 5. See location 248.
<b>LOCATION 253</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 6 (16 segments)</b> This location contains the password for HomeText Phone Number 6. See location 248.
<b>LOCATION 254</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 7 (16 segments)</b> This location contains the password for HomeText Phone Number 7. See location 248.
<b>LOCATION 255</b>	<b>HOMETEXT PASSWORD FOR PHONE NUMBER 8 (16 segments)</b> This location contains the password for HomeText Phone Number 8. See location 248.

- LOCATION 256 HOMETEXT PASSWORD FOR PHONE NUMBER 9 (16 segments)**  
This location contains the password for HomeText Phone Number 9. See location 248.
- LOCATION 257 HOMETEXT PASSWORD FOR PHONE NUMBER 10 (16 segments)**  
This location contains the password for HomeText Phone Number 10. See location 248.
- LOCATION 258 HOMETEXT PASSWORD FOR PHONE NUMBER 11 (16 segments)**  
This location contains the password for HomeText Phone Number 11. See location 248.
- LOCATION 259 HOMETEXT PASSWORD FOR PHONE NUMBER 12 (16 segments)**  
This location contains the password for HomeText Phone Number 12. See location 248.
- LOCATION 260 HOMETEXT PASSWORD FOR PHONE NUMBER 13 (16 segments)**  
This location contains the password for HomeText Phone Number 13. See location 248.
- LOCATION 261 HOMETEXT PASSWORD FOR PHONE NUMBER 14 (16 segments)**  
This location contains the password for HomeText Phone Number 14. See location 248.
- LOCATION 262 HOMETEXT PASSWORD FOR PHONE NUMBER 15 (16 segments)**  
This location contains the password for HomeText Phone Number 15. See location 248.
- LOCATION 263 HOMETEXT PASSWORD FOR PHONE NUMBER 16 (16 segments)**  
This location contains the password for HomeText Phone Number 16. See location 248.
- LOCATION 264 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 1 (3 segments)**  
This location sets the language for the HomeText reports that are sent to phone number 1. A 3-digit ID code (ISO 639) can be selected from the table below. Enter the data using small letters!

language	ISO 639 ID	language	ISO 639 ID
Danish	dan	Italian	ita
Dutch	nla	Norwegian	nor
English	eng	Polish	pol
Finnish	fin	Portuguese	por
French	fra	Spanish	esl
German	deu	Swedish	sve

- LOCATION 265 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 2 (3 segments)**  
See location 264.
- LOCATION 266 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 3 (3 segments)**  
See location 264.
- LOCATION 267 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 4 (3 segments)**  
See location 264.
- LOCATION 268 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 5 (3 segments)**  
See location 264.
- LOCATION 269 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 6 (3 segments)**  
See location 264.

- LOCATION 270 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 7 (3 segments)**  
See location 264.
- LOCATION 271 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 8 (3 segments)**  
See location 264.
- LOCATION 272 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 9 (3 segments)**  
See location 264.
- LOCATION 273 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 10 (3 segments)**  
See location 264.
- LOCATION 274 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 11 (3 segments)**  
See location 264.
- LOCATION 275 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 12 (3 segments)**  
See location 264.
- LOCATION 276 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 13 (3 segments)**  
See location 264.
- LOCATION 277 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 14 (3 segments)**  
See location 264.
- LOCATION 278 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 15 (3 segments)**  
See location 264.
- LOCATION 279 HOMETEXT LANGUAGE SELECTION FOR PHONE NUMBER 16 (3 segments)**  
See location 264.

**LOCATION 280 - 282 RESERVED**

- LOCATION 283 X-10 HOUSE CODE FOR OUTPUTS 0-9 (10 segments)**  
Program a number (0 – 15) to represent the X-10 House Code for X-10 Output #0 from the following table:

X-10 HOUSE CODES							
0 = A	2 = C	4 = E	6 = G	8 = I	10 = K	12 = M	14 = O
1 = B	3 = D	5 = F	7 = H	9 = J	11 = L	13 = N	15 = P

- Segment 1** X-10 House Code for Output 0  
**Segment 2** X-10 House Code for Output 1  
**Segment 3** X-10 House Code for Output 2  
**Segment 4** X-10 House Code for Output 3  
**Segment 5** X-10 House Code for Output 4  
**Segment 6** X-10 House Code for Output 5  
**Segment 7** X-10 House Code for Output 6  
**Segment 8** X-10 House Code for Output 7  
**Segment 9** X-10 House Code for Output 8  
**Segment 10** X-10 House Code for Output 9

**LOCATION 284 X-10 MODULE NUMBER FOR OUTPUTS 0-9 (10 segments)**

Program a number (0 – 15) to represent the X-10 Module Number for X-10 Output #0 from the following table:

Module	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Segment	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

- Segment 1** X-10 Module Number for Output 0
- Segment 2** X-10 Module Number for Output 1
- Segment 3** X-10 Module Number for Output 2
- Segment 4** X-10 Module Number for Output 3
- Segment 5** X-10 Module Number for Output 4
- Segment 6** X-10 Module Number for Output 5
- Segment 7** X-10 Module Number for Output 6
- Segment 8** X-10 Module Number for Output 7
- Segment 9** X-10 Module Number for Output 8
- Segment 10** X-10 Module Number for Output 9

**IMPORTANT NOTICE:** An X-10 interface module, i.e. NX-507E, NX-508E or NX-540E must be present for this feature to work properly.

## NX-7002N FOR PRIMARY OR BACKUP REPORTING

### NX-7002N for primary reporting

The NX-7002N can be configured to be the primary transmitter. In this case, the NX-7002N acts as the main alarm reporting device.

If the NX-7002N fails, for example, if there is no GSM coverage or there is jamming, if the network of the provider is down or there are technical problems on the receiver side, another device (the onboard dialler of the panel or an auxiliary dialler) can be configured to act as backup. In this case, set location 2 to 255 (Other dialler) as backup for the NX-7002N.

If another dialler is used as the backup device:

- Enable the Autotest report options in that dialler.
- Ensure that the reporting format used in the backup device is the same as the reporting format used in the NX-7002N.

If the NX-7002N fails to report over the GPRS network to the IP receiver, you can use a second report control from the NX-7002N as backup. For example, use SMS reporting as the backup report control. In this case, set location 1 to 1 (TCP/IP1) and location 2 to 5 (SMS1).

### NX-7002N for backup reporting

The NX-7002N can be configured to transmit events only when the primary dialler (control panel, auxiliary dialler) fails to do so. In this case, the NX-7002N acts as the backup reporting device.

**The NX-7002N can be configured as the backup device of the control panel in two ways:**

#### 1. Backup reporting using a report control (TCP/IP or SMS)

Select the desired report control in location 1 and set the corresponding report control as a secondary (backup) report control in location 25.

#### 2. Backup reporting using the GSM voice channel

In this case, the NX-7002N acts as a transparent backup device for the control panel. No programming in the NX-7002N is required, except for the SIM PIN code in location 169. All event reporting is programmed in the control panel.

The phone number must be programmed twice in the control panel:

- Program phone number 1 as usual. For example, 011234567.
- Enter a "10" in front of phone number 2. For example, **10**011234567. This forces the NX-7002N to dial the phone number instead of the control panel.
- The special audio cable (included) must be stuffed between the NX-7002N and the control panel. See *NX-7002N layout and description* for more information.



The NX-7002N can be configured as the backup device of an auxiliary dialler (NX-590 TCP/IP module or NX-570 ISDN module):

- Select the desired report control in location 1.
- Enable the Autotest report options.
- Ensure that the reporting format used with the auxiliary dialler is the same as the reporting format used in the NX-7002N.

## NX-7002N HOME TEXT

HomeText is a report format that sends an SMS message of reportable events in plain text to an end-user mobile phone. The Hometext reports are similar in appearance to the reports you read in the event log from an LCD keypad. Up to eight reporting destinations are used for HomeText (See location 1).

Up to 16 telephone numbers can be stored (see locations 232-247). Each phone number can belong to any combination of the eight HomeText groups (see location 228). Each phone number must be assigned to one of the 12 available languages that are supported (DE, NL, EN, FI, FR, D, IT, NO, PL, PT, ES, SE) in locations 264-279.

A HomeText group can be set to one of the report destinations that report specified events. All telephone numbers belonging to a HomeText group will receive SMS messages of reportable events for that group.

Example of a HomeText SMS message sent to an end-user mobile phone :

15/03 10:36 Close(Arm) P1 User 1  
15/03 10:38 Alarm P1 Kitchen  
15/03 10:38 Open (Disarm) P1 User 1  
15/03 10:38 Alarm Restore P1 Kitchen

**Day/Month**  
**Time**  
**Event+Partition number+User Number**  
**Zone Description**

Note : zone descriptions are automatically retrieved from the LCD keypad "language 1".

## NX-7002N HOME TEXT CONTROL

HomeText Control allows the user to send and receive SMS messages from a mobile phone to control the security system. HomeText Control can be enabled in location 200. The HomeText Control SMS messages can consist of a **password**, **commands** and **values**. All elements are not case-sensitive.

**Password** If the system is set up to use a password, the password must be entered before the command. They should only have alphabetic numbers and no spaces. See locations 248 – 263.

**Commands** Instructions sent to the security system. They are shown in **bold in the table** below.

**Values** Information that the user wants to send or receive from the system. They are shown *italicised* between brackets [ ] in the table below. If you need to enter more than one value in a list, they need to be separated by spaces. For example, to switch outputs 1 and 2, send the command **switch aux** 1 2. Some commands, like deleting a user or changing a password, are available to the master user only.

All these elements are not case-sensitive. No national characters are allowed and should not be used - neither in commands nor in values - for example, you should type **espanol** instead of **Español**.

To Do This	Send This	Explanation	Example
Get your system status	<b>status</b>	Sends the system status to your phone.	<b>status</b>
Arm your system	<b>arm</b> [ <i>partition list</i> ]	Arms the system remotely.	<b>arm 1</b> to arm partition 1

To Do This	Send This	Explanation	Example
		Instead of the partition numbers you can use a keyword ALL for all partitions.	<b>arm 1 3</b> to arm partitions 1 and 3 <b>arm all</b> to arm all partitions
Disarm your system	<b>disarm</b> [partition list]	Disarms the system remotely.	<b>disarm 1</b> to disarm partition 1 <b>disarm 1 3</b> to disarm partitions 1 and 3 <b>disarm all</b> to disarm all partitions
Partarm your system	<b>partarm</b> [partition list]	Partarms the system remotely.	<b>partarm 1</b> to arm partition 1 <b>partarm 1 3</b> to arm partitions 1 and 3 <b>partarm all</b> to arm all partitions
Get the status of the specified zones	<b>zone status</b> [partition list]	Sends the status of the zone (s) to your phone (open and bypassed zones). Sending a command without a partition list returns information for all partitions.	<b>zone status 1</b> to receive the message with zone status from zones assigned to partition 1 <b>zone status all</b> to receive the message with zone status for all zones
Get a list of zones with problems	<b>zone faults</b> [partition list]	Sends a list of zones with problems to your phone. Sending a command without a partition list returns information for all partitions.	<b>zone faults 1</b> to receive fault information from zones assigned to partition 1 <b>zone faults all</b> to receive the message with zone faults for all zones
Bypass zones	<b>bypass</b> [zone list]	Bypasses the specified zones.	<b>bypass 1 3</b> to bypass zones 1 and 3
Read events from the event log	<b>events</b> [number] <b>events</b> [range]	Sends the specified event or events from the event log to the phone.	<b>events 1</b> to read the last (newest) event from the panel log <b>events 1 3</b> to read the last 3 events from the panel log <b>events</b> returns the 10 most recent events
Set a connection to a home automation device	<b>output</b> [output_number X10_house_code X10_unit]	Connects a specified home automation device.	<b>output 2 A 1</b> to set output two to control X-10 device with house code A and unit number 1
Switch on X-10 outputs	<b>on</b> [output list]	Switches on an X-10 output.	<b>on 1 4 7</b> to switch on X-10 outputs 1, 4 and 7 <b>on all</b> to switch on all X-10 outputs
Switch off X-10 outputs	<b>off</b> [output list]	Switches off an X-10 output.	<b>off 1 4 7</b> to switch off X-10 outputs 1, 4 and 7 <b>off all</b> to switch off all X-10 outputs
Activate an auxiliary function	<b>switch aux</b> [output list]	Changes the auxiliary function that occurs when it is activated, for example by a button on a keyfob.	<b>switch aux 1</b> to activate aux output 1 on the panel
Change your user code	<b>user code</b> [new user code]	Changes your user code.	<b>user code 0101</b> to change your own user code to 0101
Change another user code	<b>user code</b> [user number new user code]	Changes another persons' user code.	<b>user code 2 0101</b> to change the user code to 0101 for the user 2
Delete a user code	<b>delete user code</b> [user number]	Deletes a user code.	<b>delete user code 2</b> to delete the user code for the user 2
Start reporting	<b>start reporting</b>	Sends reports from the NX7002.	<b>start reporting</b>
Stop reporting until system re-arm	<b>stop reporting</b>	Stops reports being sent from the NX7002 until the system is rearmed.	<b>stop reporting</b>
Stop reporting until you start it again	<b>stop reporting permanent</b>	Stops reports being sent from the NX7002 until the start reporting command is sent.	<b>stop reporting permanent</b>
Register your phone	<b>register</b> [phone number user number]	The phone is registered with your alarm system.	<b>register 32444123456 2</b> to register the number 32444123456 to user 2
Register your phone with a new password	<b>register</b> [phone number user number Password]	The phone is registered with your alarm system with a new password.	<b>register 32444123456 1 444444</b> to register the number 32444123456 to user 1 with a password 444444
To change language	<b>language</b> [language]	The language the SMS texts use is changed. The	<b>language deutsch</b> to change the interface to German

To Do This	Send This	Explanation	Example
		available arguments (languages) are: English, Dutch, Espanol, Suomi, Italiano, Polska, Portugues, Svenska, Francais, Dansk, Deutsch and Norsk. <b>Note: No national characters are to be used in typed arguments.</b>	
To get a list of SMS commands	<b>help</b>	Sends a list of valid SMS commands to your phone.	<b>help</b>
To get a users details	<b>user details</b> [user number]	Sends the users details to your phone.	<b>user details 2</b> to receive a message with information about user 2
To get the current configuration of outputs	<b>list outputs</b>	Sends a list of how the outputs are currently programmed to your phone.	<b>list outputs</b>
To get a list of users	<b>list users</b>	Sends a list of all currently registered users and their phone numbers.	<b>list users</b>
To disable access from the specified phone	<b>disable phone</b> [phone number]	Disables the SMS system control from the particular phone.	<b>disable phone 32444123456</b> to disable HomeText control from this phone number
To enable access from the specified phone	<b>enable phone</b> [phone number]	Enables a previously disabled SMS system control from the particular phone.	<b>enable phone 32444123456</b> to enable HomeText control from this phone number
To change your password	<b>password</b> [new password]	Changes your password.	<b>password 444444</b> to change a password assigned to your phone to 444444
To change another persons SMS password	<b>password phone</b> [phone number new password]	Changes another person's password.	<b>password phone 32444123456 444444</b> to change a password assigned to the number 32444123456 to 444444

After a command message was received by the system, a **confirmation message** will be returned to the end user. They let the user know the message has been received and the command has been carried out by the system.

Message	Meaning
Alarm <b>partition list</b>	There is an alarm in the partitions listed.
Armed <b>partition list</b>	The partitions listed have been armed.
Partarmed <b>partition list</b>	The partitions listed have been part armed.
Disarmed <b>partition list</b>	The partitions listed have been disarmed.
Not ready <b>partition list</b>	The partitions listed cannot be armed.
Partition <b>n</b> Open <b>zone list</b>	The zones listed in this partition are open.
Partition <b>n</b> Bypassed <b>zone list</b>	The zones listed in this partition are bypassed.

## NX-7002N SOFTWARE UPGRADE

To upgrade the software of the NX-7002N, you must have an NX-7002-FLASH PROGRAMMER. This device carries the NX-7002N software.

- Power down the NX-7002N module.
- Plug the NX-7002-FLASH PROGRAMMER onto the 14 PIN socket of the NX-7002N (See NX-7002N layout).
- Power up the NX-7002N. All LED's on the NX-7002-FLASH PROGRAMMER will blink for a couple of seconds.
- Press the **Program** button on the NX-7002-FLASH PROGRAMMER to initiate the program transfer onto the NX-7002N. The NX-7002-FLASH PROGRAMMER transfers the software to the NX-7002N. If the transfer was successful, the **Success** LED will be ON.
- Power down the NX-7002N.
- Unplug the NX-7002-FLASH PROGRAMMER.
- Install and configure the NX-7002N module in the usual way.

**NOTE**

- After a software upgrade, the NX-7002N will load the default settings. The existing programming will be lost !
- The current software revision of the NX-7002N can be read from location 216 (module 78).

# NX-7002N PROGRAMMING WORKSHEETS

(Factory defaults are in ***bold italic*** text)

LOC	PG	DESCRIPTION	DEFAULT	PROGRAMMING DATA
0	13	MODE OF OPERATION FEATURE SELECTION		
		<b>Segment 1</b> (Circle Numbers To Program)		<b>Segment 2</b> (Circle Numbers To Program)
		1	<b><i>Enable site initiated downloading (*98 from a keypad)</i></b>	1 Use SIA DCS as backup format (Contact ID if off)
		2	<b><i>Enable remote initiated downloading</i></b>	2 Reserved
		3	Remote initiated download must be from known source	3 Reserved
		4	Enable remote download at test time	4 Reserved
		5	Enable auto-answer incoming CSD GSM download call	5 Reserved
		6	Callback required for incoming CSD GSM download call	6 Reserved
		7	Use V.110 for site-initiated CSD GSM calls	7 Reserved
		8	<b><i>Use non-transparent mode for site initiated CSD GSM calls</i></b>	8 Reserved
	13	<b>Segment 3</b> (Circle Numbers To Program)		<b>Segment 4</b> (Circle Numbers To Program)
		1	Reserved	1 Reserved
		2	Polling enable (for UL AA)	2 Reserved
		3	Reserved	3 Reserved
		4	Reserved	4 <b><i>TCP/IP Reporting in SIA (Contact ID if off)</i></b>
		5	Reserved	5 Reserved
		6	Reserved	6 Reserved
		7	Reserved	7 <b><i>Use 3-DES encryption</i></b>
		8	Reserved	8 <b><i>Up/downloading using GSM CSD (GSM GPRS if off)</i></b>
1	14	DESTINATION SELECTION FOR REPORT CONTROL 1	0	
2	14	BACKUP DESTINATION SELECTION FOR REPORT CONTROL 1	0	
3	14	REPORT DELAY FOR REPORT CONTROL 1	0	
4	15	EVENT SELECTION FOR REPORT CONTROL 1 (BY PARTITION)		
		<b>Segment 1</b>	Alarms and Restores	1-2-3-4-5-6-7-8
		<b>Segment 2</b>	Open/Close	1-2-3-4-5-6-7-8
		<b>Segment 3</b>	Bypass	1-2-3-4-5-6-7-8
		<b>Segment 4</b>	Zone Trouble	1-2-3-4-5-6-7-8
		<b>Segment 5</b>	Power Trouble (AC Failure / Low Batt.)	1-2-3-4-5-6-7-8
		<b>Segment 6</b>	Siren & Telephone Fault	1-2-3-4-5-6-7-8
		<b>Segment 7</b>	Test Reports	1-2-3-4-5-6-7-8
		<b>Segment 8</b>	Program, Download, & Log Full	1-2-3-4-5-6-7-8
		<b>Segment 9</b>	Tampers (zones and box)	1-2-3-4-5-6-7-8
		<b>Segment 10</b>	Short Circuit	1-2-3-4-5-6-7-8
		<b>Segment 11</b>	Sensor Lost	1-2-3-4-5-6-7-8
		<b>Segment 12</b>	Sensor Low Battery	1-2-3-4-5-6-7-8
		<b>Segment 13</b>	Expander Trouble (incl. keypad)	1-2-3-4-5-6-7-8
		<b>Segment 14</b>	Failure To Communicate	1-2-3-4-5-6-7-8
		<b>Segment 15</b>	Zone Activity Monitoring	1-2-3-4-5-6-7-8
		<b>Segment 16</b>	Reserved	1-2-3-4-5-6-7-8
5	15	DESTINATION SELECTION FOR REPORT CONTROL 2	0	
6	15	BACKUP DESTINATION SELECTION FOR REPORT CONTROL 2	0	
7	15	REPORT DELAY FOR REPORT CONTROL 2	0	

LOC	PG	DESCRIPTION	DEFAULT	PROGRAMMING DATA
8	15	EVENT SELECTION FOR REPORT CONTROL 2 (BY PARTITION)		
		Segment 1	Alarms and Restores	0-0-0-0-0-0-0-0
		Segment 2	Open/Close	0-0-0-0-0-0-0-0
		Segment 3	Bypass	0-0-0-0-0-0-0-0
		Segment 4	Zone Trouble	0-0-0-0-0-0-0-0
		Segment 5	Power Trouble (AC Failure / Low Batt.)	0-0-0-0-0-0-0-0
		Segment 6	Siren & Telephone Fault	0-0-0-0-0-0-0-0
		Segment 7	Test Reports	0-0-0-0-0-0-0-0
		Segment 8	Program, Download, & Log Full	0-0-0-0-0-0-0-0
		Segment 9	Tampers (zones and box)	0-0-0-0-0-0-0-0
		Segment 10	Short Circuit	0-0-0-0-0-0-0-0
		Segment 11	Sensor Lost	0-0-0-0-0-0-0-0
		Segment 12	Sensor Low Battery	0-0-0-0-0-0-0-0
		Segment 13	Expander Trouble (incl. keypad)	0-0-0-0-0-0-0-0
		Segment 14	Failure To Communicate	0-0-0-0-0-0-0-0
		Segment 15	Zone Activity Monitoring	0-0-0-0-0-0-0-0
		Segment 16	Reserved	0-0-0-0-0-0-0-0
9	15	DESTINATION SELECTION FOR REPORT CONTROL 3	0	
10	15	BACKUP DESTINATION SELECTION FOR REPORT CONTROL 3	0	
11	15	REPORT DELAY FOR REPORT CONTROL 3	0	
12	16	EVENT SELECTION FOR REPORT CONTROL 3 (BY PARTITION)		
		Segment 1	Alarms and Restores	0-0-0-0-0-0-0-0
		Segment 2	Open/Close	0-0-0-0-0-0-0-0
		Segment 3	Bypass	0-0-0-0-0-0-0-0
		Segment 4	Zone Trouble	0-0-0-0-0-0-0-0
		Segment 5	Power Trouble (AC Failure / Low Batt.)	0-0-0-0-0-0-0-0
		Segment 6	Siren & Telephone Fault	0-0-0-0-0-0-0-0
		Segment 7	Test Reports	0-0-0-0-0-0-0-0
		Segment 8	Program, Download, & Log Full	0-0-0-0-0-0-0-0
		Segment 9	Tampers (zones and box)	0-0-0-0-0-0-0-0
		Segment 10	Short Circuit	0-0-0-0-0-0-0-0
		Segment 11	Sensor Lost	0-0-0-0-0-0-0-0
		Segment 12	Sensor Low Battery	0-0-0-0-0-0-0-0
		Segment 13	Expander Trouble (incl. keypad)	0-0-0-0-0-0-0-0
		Segment 14	Failure To Communicate	0-0-0-0-0-0-0-0
		Segment 15	Zone Activity Monitoring	0-0-0-0-0-0-0-0
		Segment 16	Reserved	0-0-0-0-0-0-0-0
13	16	DESTINATION SELECTION FOR REPORT CONTROL 4	0	
14	16	BACKUP DESTINATION SELECTION FOR REPORT CONTROL 4	0	
15	16	REPORT DELAY FOR REPORT CONTROL 4	0	

LOC	PG	DESCRIPTION	DEFAULT	PROGRAMMING DATA
16	16	EVENT SELECTION FOR REPORT CONTROL 4 (BY PARTITION)		
		Segment 1	Alarms and Restores	0-0-0-0-0-0-0-0
		Segment 2	Open/Close	0-0-0-0-0-0-0-0
		Segment 3	Bypass	0-0-0-0-0-0-0-0
		Segment 4	Zone Trouble	0-0-0-0-0-0-0-0
		Segment 5	Power Trouble (AC Failure / Low Batt.)	0-0-0-0-0-0-0-0
		Segment 6	Siren & Telephone Fault	0-0-0-0-0-0-0-0
		Segment 7	Test Reports	0-0-0-0-0-0-0-0
		Segment 8	Program, Download, & Log Full	0-0-0-0-0-0-0-0
		Segment 9	Tampers (zones and box)	0-0-0-0-0-0-0-0
		Segment 10	Short Circuit	0-0-0-0-0-0-0-0
		Segment 11	Sensor Lost	0-0-0-0-0-0-0-0
		Segment 12	Sensor Low Battery	0-0-0-0-0-0-0-0
		Segment 13	Expander Trouble (incl. keypad)	0-0-0-0-0-0-0-0
		Segment 14	Failure To Communicate	0-0-0-0-0-0-0-0
		Segment 15	Zone Activity Monitoring	0-0-0-0-0-0-0-0
		Segment 16	Reserved	0-0-0-0-0-0-0-0
17	16	DESTINATION SELECTION FOR REPORT CONTROL 5	0	
18	16	BACKUP DESTINATION SELECTION FOR REPORT CONTROL 5	0	
19	16	REPORT DELAY FOR REPORT CONTROL 5	0	
20	16	EVENT SELECTION FOR REPORT CONTROL 5 (BY PARTITION)		
		Segment 1	Alarms and Restores	0-0-0-0-0-0-0-0
		Segment 2	Open/Close	0-0-0-0-0-0-0-0
		Segment 3	Bypass	0-0-0-0-0-0-0-0
		Segment 4	Zone Trouble	0-0-0-0-0-0-0-0
		Segment 5	Power Trouble (AC Failure / Low Batt.)	0-0-0-0-0-0-0-0
		Segment 6	Siren & Telephone Fault	0-0-0-0-0-0-0-0
		Segment 7	Test Reports	0-0-0-0-0-0-0-0
		Segment 8	Program, Download, & Log Full	0-0-0-0-0-0-0-0
		Segment 9	Tampers (zones and box)	0-0-0-0-0-0-0-0
		Segment 10	Short Circuit	0-0-0-0-0-0-0-0
		Segment 11	Sensor Lost	0-0-0-0-0-0-0-0
		Segment 12	Sensor Low Battery	0-0-0-0-0-0-0-0
		Segment 13	Expander Trouble (incl. keypad)	0-0-0-0-0-0-0-0
		Segment 14	Failure To Communicate	0-0-0-0-0-0-0-0
		Segment 15	Zone Activity Monitoring	0-0-0-0-0-0-0-0
		Segment 16	Reserved	0-0-0-0-0-0-0-0
21	16	DESTINATION SELECTION FOR REPORT CONTROL 6	0	
22	16	BACKUP DESTINATION SELECTION FOR REPORT CONTROL 6	0	
23	16	REPORT DELAY FOR REPORT CONTROL 6	0	

LOC	PG	DESCRIPTION	DEFAULT	PROGRAMMING DATA
24	17	EVENT SELECTION FOR REPORT CONTROL 6 (BY PARTITION)		
		Segment 1	Alarms and Restores	0-0-0-0-0-0-0-0
		Segment 2	Open/Close	0-0-0-0-0-0-0-0
		Segment 3	Bypass	0-0-0-0-0-0-0-0
		Segment 4	Zone Trouble	0-0-0-0-0-0-0-0
		Segment 5	Power Trouble (AC Failure / Low Batt.)	0-0-0-0-0-0-0-0
		Segment 6	Siren & Telephone Fault	0-0-0-0-0-0-0-0
		Segment 7	Test Reports	0-0-0-0-0-0-0-0
		Segment 8	Program, Download, & Log Full	0-0-0-0-0-0-0-0
		Segment 9	Tampers (zones and box)	0-0-0-0-0-0-0-0
		Segment 10	Short Circuit	0-0-0-0-0-0-0-0
		Segment 11	Sensor Lost	0-0-0-0-0-0-0-0
		Segment 12	Sensor Low Battery	0-0-0-0-0-0-0-0
		Segment 13	Expander Trouble (incl. keypad)	0-0-0-0-0-0-0-0
		Segment 14	Failure To Communicate	0-0-0-0-0-0-0-0
		Segment 15	Zone Activity Monitoring	0-0-0-0-0-0-0-0
		Segment 16	Reserved	0-0-0-0-0-0-0-0
25	17	PRIMARY REPORTING FLAGS FOR REPORT CONTROL 1 TO 6		
		Segment 1 (Circle Numbers To Program)		
		1	On = Report Control 1 is Primary Reporting Flag / Off = Report Control 1 is Backup for control panel	
		2	On = Report Control 2 is Primary Reporting Flag / Off = Report Control 2 is Backup for control panel	
		3	On = Report Control 3 is Primary Reporting Flag / Off = Report Control 3 is Backup for control panel	
		4	On = Report Control 4 is Primary Reporting Flag / Off = Report Control 4 is Backup for control panel	
		5	On = Report Control 5 is Primary Reporting Flag / Off = Report Control 5 is Backup for control panel	
		6	On = Report Control 6 is Primary Reporting Flag / Off = Report Control 6 is Backup for control panel	
		7	Reserved	
		8	Reserved	
26 - 31	17	RESERVED		
32	17	PPP (dial-up account) user ID (chars 1 - 16)		
33	17	PPP (dial-up account) user ID (chars 17 - 32)		
34	17	PPP (dial-up account) password		
35 - 59	17	RESERVED		
60	17	Name of GPRS access point - APN (chars 1 - 16)		
61	17	Name of GPRS access point - APN (chars 17 - 32)		
62	18	Name of GPRS access point - APN (chars 33 - 48)		
63	18	Name of GPRS access point - APN (chars 49 - 64)		
64 - 100	18	RESERVED		
101	18	NX-7002N assigned IP address (DHCP)	0.0.0.0	
102	18	IP address for TCP/IP receiver 1	0.0.0.0	
103	18	IP address for TCP/IP receiver 2	0.0.0.0	
104-108	18	RESERVED		
109	18	IP address for download computer	0.0.0.0	
110-118	18	RESERVED		
119	18	Receiver alarm and poll port	9.9.9.9	
120	18	Receiver download port	9.9.9.8	
121-138	18	RESERVED		
139	18	TCP/IP 1 Account number	0-0-0-0-0-0-0-0	
140	18	TCP/IP 1 Receiver number	0-0-0-0	
141	19	TCP/IP 1 Line number	0-0-0-0	
142	19	TCP/IP 2 Account number	0-0-0-0-0-0-0-0	
143	19	TCP/IP 2 Receiver number	0-0-0-0	
144	19	TCP/IP 2 Line number	0-0-0-0	
145	19	SMS 1 Account number	0-0-0-0-0-0-0-0	
146	19	SMS 2 Account number	0-0-0-0-0-0-0-0	
147-153	19	RESERVED		



[illegible]

LOC	PG	DESCRIPTION	DEFAULT	PROGRAMMING DATA
		<b>8</b> On = Good RSSI Level		
		<b>Segment 3</b>		
		<b>1</b> On = Max reports in 24h limit reached		
		<b>2-8</b> Reserved		
175	24	GSM modem manufacturer (read only)	(name of manufacturer)	
176	24	GSM modem model (read only)	(name of model)	
177	24	GSM modem software revision (read only)	(software revision)	
178	24	GSM modem serial number (read only)	(serial number)	
179-199	24	Reserved		
200	24	MISCELLANEOUS FEATURE SELECTION		
		<b>Segment 1</b>		
		Reserved		
		<b>Segment 2</b>		
		<b>1</b> On = Enable HomeText Control		
		<b>2</b> On = only commands from registered phone numbers are accepted Off = commands from any phone number are accepted		
		<b>3</b> On = A password must be included with the HomeText message Off = A password only required for HomeText messages from unregistered phone(s)		
		<b>4</b> On = Forward unrecognized received SMS messages to the Administrator Phone		
		<b>5</b> On = Initiate an up/download session via call-back when audio call is detected		
		<b>6</b> On = Enable XSIA reporting for SIA overall media types		
		<b>7</b> On = TCP/IP polling time in hours Off = TCP/IP polling time in minutes		
		<b>8</b> Reserved		
		<b>Segment 3</b>		
		<b>1</b> On = Disable GSM/GPRS Line Fault indication on keypad		
		<b>2</b> On = Disable GSM/GPRS Line Fault reporting		
		<b>3</b> On = Send RSSI combined with test call		
		<b>4-8</b> Reserved		
		<b>Segment 4 - 8</b>		
		Reserved		
201	25	Reserved		
202	25	<b>Segment 1</b> Number of bad attempts for per phone disable of HomeText control	5	
		<b>Segment 2</b> LCD keypad address for zone text	192	
		<b>Segment 3</b> Reserved		
203	25	Time for RSSI Line Fault Restore	3	
204-215	25	Reserved		
216	25	Current software version (read only)	x.xx	
217-224	25	Reserved		
225	25	HomeText Site characters 1-16	0-0-0-0-0-0-0-0	
226	25	HomeText Site characters 17-32	0-0-0-0-0-0-0-0	
227	25	HomeText User Numbers		
		<b>Segment 1</b> User Number for Phone Number 1	0	
		<b>Segment 2</b> User Number for Phone Number 2	0	
		<b>Segment 3</b> User Number for Phone Number 3	0	
		<b>Segment 4</b> User Number for Phone Number 4	0	
		<b>Segment 5</b> User Number for Phone Number 5	0	
		<b>Segment 6</b> User Number for Phone Number 6	0	
		<b>Segment 7</b> User Number for Phone Number 7	0	
		<b>Segment 8</b> User Number for Phone Number 8	0	
		<b>Segment 9</b> User Number for Phone Number 9	0	
		<b>Segment 10</b> User Number for Phone Number 10	0	
		<b>Segment 11</b> User Number for Phone Number 11	0	
		<b>Segment 12</b> User Number for Phone Number 12	0	
		<b>Segment 13</b> User Number for Phone Number 13	0	

[illegible]

LOC	PG	DESCRIPTION				DEFAULT	PROGRAMMING DATA
262	28	HomeText Password for Phone Number 15					
263	28	HomeText Password for Phone Number 16					
264	28	Home Text Language Selection for Phone Number 1				---	
265	28	Home Text Language Selection for Phone Number 2				---	
266	28	Home Text Language Selection for Phone Number 3				---	
267	28	Home Text Language Selection for Phone Number 4				---	
268	28	Home Text Language Selection for Phone Number 5				---	
269	28	Home Text Language Selection for Phone Number 6				---	
270	29	Home Text Language Selection for Phone Number 7				---	
271	29	Home Text Language Selection for Phone Number 8				---	
272	29	Home Text Language Selection for Phone Number 9				---	
273	29	Home Text Language Selection for Phone Number 10				---	
274	29	Home Text Language Selection for Phone Number 11				---	
275	29	Home Text Language Selection for Phone Number 12				---	
276	29	Home Text Language Selection for Phone Number 13				---	
277	29	Home Text Language Selection for Phone Number 14				---	
278	29	Home Text Language Selection for Phone Number 15				---	
279	29	Home Text Language Selection for Phone Number 16				---	
	2	Choose from	language	ISO 639 ID	language	ISO 639 ID	
			Danish	dan	Italian	ita	
			Dutch	nla	Norwegian	nor	
			English	eng	Polish	pol	
			Finnish	fin	Portuguese	por	
			French	fra	Spanish	esl	
			German	deu	Swedish	sve	
280-282	29	Reserved					
283	29	X-10 HOUSE CODE FOR OUTPUTS 1 – 10 (HOMETEXT CONTROL)					
		Segment 1	X-10 House Code output 0			0	
		Segment 2	X-10 House Code for output 1			1	
		Segment 3	X-10 House Code for output 2			2	
		Segment 4	X-10 House Code for output 3			3	
		Segment 5	X-10 House Code for output 4			4	
		Segment 6	X-10 House Code for output 5			5	
		Segment 7	X-10 House Code for output 6			6	
		Segment 8	X-10 House Code for output 7			7	
		Segment 9	X-10 House Code for output 8			8	
		Segment 10	X-10 House Code for output 9			9	
284	30	X-10 MODULE NUMBER FOR OUTPUTS 1 – 10 (HOMETEXT CONTROL)					
		Segment 1	X-10 Module Number for output 0			0	
		Segment 2	X-10 Module Numberfor output 1			1	
		Segment 3	X-10 Module Number for output 2			2	
		Segment 4	X-10 Module Number for output 3			3	
		Segment 5	X-10 Module Number for output 4			4	
		Segment 6	X-10 Module Number for output 5			5	
		Segment 7	X-10 Module Number for output 6			6	
		Segment 8	X-10 Module Number for output 7			7	
		Segment 9	X-10 Module Number for output 8			8	
		Segment 10	X-10 Module Number for output 9			9	

## INSTALLATION GUIDELINES

- Avoid installing the module:
  - Where temperatures exceed 49°C or fall below 0°C.
  - In the immediate vicinity of electronic equipment.
  - In humid rooms. The module is not hermetically sealed and excess moisture on the circuit board can eventually cause an electrical fault.
- Keep the antenna within 2 m of the panel.
- The antenna is to be mounted an appropriate distance from people, i.e. more than 200 mm.
- Before permanently mounting the module, test it at the intended location to ensure that the remote alarm receiver can receive signal transmissions. There may be blind or non-operational locations within the installation. Normally these can be overcome by moving the antenna.

**Note:** To test the signal strength at the intended location, insert the SIM card into a mobile phone and check the strength indicator on the mobile phone.

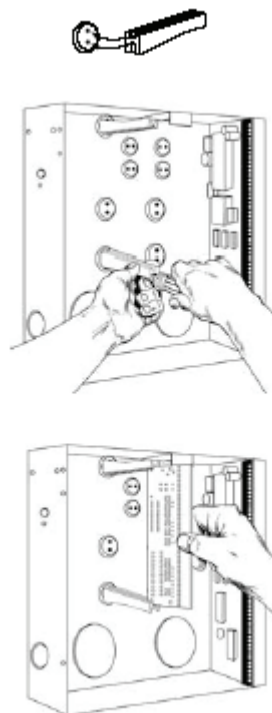
## MOUNTING THE NX-7002N

Inside the can, several 2-holed insertion points have been constructed. This allows for either vertical or horizontal placement of the modules. Notice that each insertion point has two sizes of holes - a larger hole and a smaller hole.

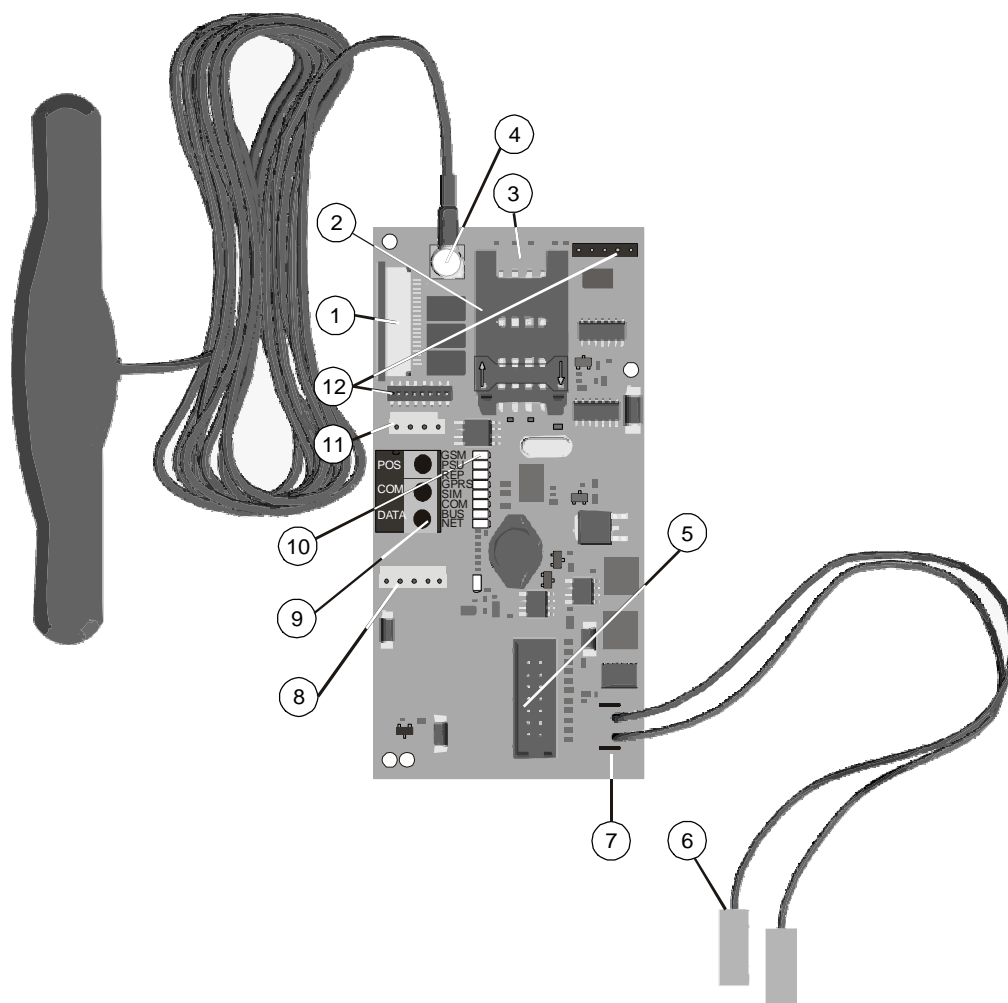
**Diagram 1:** The black plastic PCB guides are grooved on one edge where the PC board will be seated. The end with the half-moon protrusion fits into the larger hole. The smaller hole is for the screw.

**Diagram 2:** Place the *first* black plastic PCB guide in the top insertion point, grooved edge downward. The half-moon protrusion will be in the large hole. It does not require force. Insert one of the provided screw into the smaller hole (from inside the can) to secure it in place. A screwdriver should reach through the notch that runs the length of the guide to tighten the screw. The *second* PBC guide should be positioned opposite the first (grooved edge up) and placed in the lower insertion point, using the same procedures described above. Once mounted, screw it in securely.

**Diagram 3:** The module should slide freely in the grooves of both guides.



## NX-7002N LAYOUT AND DESCRIPTION



	DESCRIPTION		
①	Connect to NX-9104 (only if VVMIQ is used via GPRS reporting)		
②	SIM card holder		
③	GPRS modem (on the bottom side)		
④	Connect antenna to this connector		
⑤	Header for software upgrade		
⑥	Connect to panel battery		
⑦	Connect main panel battery leads to these connectors		
⑧	Audio tap connector If the NX-7002N uses the voice channel for event reporting, the special audio cable (included) needs to be stuffed between this connector of the NX-7002N and the Audio Tap connector of the control panel.		
⑨	Keypad bus terminals (POS, COM, DATA)		
⑩	<b>Status LEDs</b>		
	<b>LED</b>	<b>Function</b>	<b>Description</b>
	GSM	GSM In Use	This LED indicates that the module is using the GSM channel (reporting over voice channel or U/D over CSD).
	PSU	PSU Error	This LED indicates that there is a problem with the 3.8 V Switched Mode Power Supply Unit (the modem power source is too low).

⑩	REP	Reporting	This LED indicates that TCP/SMS reporting is taking place.
	GPRS	GPRS Active	This LED indicates that the module is connected to the GPRS network. This LED turns off when the module is no longer connected to the GPRS network, for example, when it uses the voice channel or CSD.
	SIM	SIM Error	This LED indicates that the SIM card is blocked and a PUK code is required to unblock it.
	COM	GSM Communication	This LED is for future use.
	BUS	BUS Communication	This LED indicates that the module is receiving messages over the bus (from the control panel).
	NET	Network OK	This LED indicates that the module is connected to the GSM network (voice channel or CSD).
⑪	NetworkX bus connector		
⑫	Diagnostics		

## TECHNICAL SPECIFICATIONS

### NX-7002N Technical specifications

Power supply voltage	9.0 - 14.5 Vdc $\pm$ 2%
Current consumption	
- Nominal	30 mA at 13.8 Vdc $\pm$ 2%
- Maximum	up to 2 Amps peak
Battery	max. 12 V/7.2 Ah
Operating temperature	0 - 49° C
Humidity	Max 93% non condensating
Dimensions (PCB board only) WxHxD	102 x 50 x 24 mm
Weight (PCB board only)	50 g

## APPENDIX 1: REPORTING FIXED CODES IN CONTACT-ID AND SIA

The table below lists the event codes sent for the following reports (if enabled) when using Contact ID or SIA formats.

REPORT	CONTACT ID	SIA
MANUAL TEST	601	RX
AUTOTEST	602	RP
OPEN (User Number)	401	OP
CLOSE (User Number)	401	CL
CANCEL (User Number)	406	OC
DOWNLOAD COMPLETE	412	RS
START PROGRAM	627	LB
END PROGRAM	628	LX
RECENT CLOSE (User Number)	401	CR
EXIT ERROR (User Number)	457	EE
EVENT LOG FULL	605	JL
FAIL TO COMMUNICATE	354	RT
EXPANDER TROUBLE (device number)	333	ET
EXPANDER RESTORE (device number)	333	ER
TELEPHONE FAULT	351	LT
TELEPHONE RESTORE	351	LR
SIREN TAMPER	321	YA
SIREN RESTORE	321	YH
AUX POWER OVERCURRENT (device number)	312	YP
AUX POWER RESTORE (device number)	312	YQ
LOW BATTERY (device number)	309	YT
LOW BATTERY RESTORE (device number)	309	YR
AC FAIL (device number)	301	AT
AC RESTORE (device number)	301	AR
BOX TAMPER (device number)	137	TA
BOX TAMPER RESTORE (device number)	137	TR
KEYPAD TAMPER	137	TA
KEYPAD PANIC (audible)	120	PA
KEYPAD PANIC (silent)	121	HA
DURESS	121	HA
KEYPAD AUXILIARY 1	110	FA
KEYPAD AUXILIARY 2	100	MA
RF SENSOR LOST (zone number)	381	*T
RF SENSOR RESTORE (zone number)	381	*R
SENSOR LOW BATTERY (zone number)	384	XT
SENSOR BATTERY RESTORE (zone number)	384	XR
ZONE TROUBLE (zone number)	380	*T
ZONE TROUBLE RESTORE (zone number)	380	*R
ZONE TAMPER (zone number)	137	TA
ZONE TAMPER RESTORE (zone number)	137	TR
ZONE BYPASS (zone number)	570	*B
BYPASS RESTORE (zone number)	570	*U
EARLY OPEN / LATE CLOSE	451	OK



REPORT	CONTACT ID	SIA
FAIL TO CLOSE	454	CI
ZONE ACTIVITY FAULT	391	NA
ZONE ACTIVITY RESTORE	391	NS
RF JAMMING	344	XQ
RF JAMMING RESTORE	344	XH
SMOKE DETECTOR CLEAN ME	393	YX
SMOKE DETECTOR CLEAN ME RESTORE	393	YZ

THE NUMBER IN PARENTHESES FOLLOWING THE EVENT IS THE NUMBER THAT WILL BE REPORTED AS THE ZONE NUMBER. IF THERE ARE NO PARENTHESES, THE ZONE WILL BE "0". \* The character transmitted in this slot will be the first character from the event code of the zone that is bypassed or in trouble.

SPECIAL REPORTS	CONTACT ID	SIA
FAIL TO COMMUNICATE OVER PSTN	354 (0)	RT000
GSM MODULE PROBLEM	354 (1)	RT001
FAIL TO COMMUNICATE OVER SMS	354 (2)	RT002
FAIL TO COMMUNICATE OVER GPRS	354 (2)	RT002
GSM LOGIN FAILURE	351 (193)	LT193
GSM LOGIN SUCCESS	351 (193)	LR193
LOW RSSI	351 (194)	LT194
GOOD RSSI	351 (194)	LR194
GPRS DOWN	351 (195)	LT195
GPRS OK	351 (195)	LR195
RSSI VALUE COMBINED WITH TEST CALL (vvv= RSSI value)		RXvvv

## APPENDIX 2: OPERATOR ID CODES

This appendix provides a list of operator codes and the associated operator name.

Operator name	Network name	ID code	On mobile phone
<b>Belgium</b>			
Proximus Belgacom Mobile	Proximus	20601	BEL PROXIMUS
Mobistar	Mobistar	20610	B Mobistar
Base	Base	20620	Base
<b>Denmark</b>			
TDC Mobil A/S	TDC Mobil	23801	DK TDC
Sonofon	SONOFON	23802	SONO
Hi3G Denmark ApS	3 DK	23806	3 DK
Telia A/S Denmark	TELIA DK	23820	TELIA
Orange A/S	Orange	23830	Orange
<b>France</b>			
Orange France	Orange F	20801	F-FT
SFR	SFR	20810	SFR
Bouygues Telecom	Bouygues Telecom	20820	BOUYGTEL
<b>Germany</b>			
T-Mobile Deutschland GmbH	D1	26201	TMO D
Vodafone D2 GmbH	Vodafone	26202	
E-Plus Mobilfunk GmbH	E-Plus	26203	E-Plus
O2 (Germany) GmbH & Co	OHG O2(Germany) GmbH & Co. OHG	26207	o2 - de
<b>Italy</b>			
Telecom Italia Mobile	Telecom Italia Mobile	22201	TIM
Vodafone Omnitel N.V	Vodafone	22210	voda IT
Wind Telecomunicazioni SpA	Wind Telecomunicazioni SpA	22288	I WIND
H3G	H3G	22299	3ITA
<b>Ireland</b>			
Vodafone Ireland Plc	Vodafone	27201	IRL Voda, Eircell, Eir Gsm
O2 Communications (Ireland) Ltd	O2 Communications (Ireland) Ltd	27202	O2 - IRL
METEOR	METEOR	27203	METEOR
<b>Jersey, Guernsey and Isle of Man</b>			
Jersey Telecom	JT GSM	23450	JT GSM
Cable & Wireless Guernsey Ltd	Cable & Wireless Guernsey	23455	C&W
Manx Telecom	Pronto GSM	23458	Pronto
<b>Netherlands</b>			
Vodafone Libertel N.V	Vodafone	20404	voda NL
KPN Mobile The Netherlands BV	KPN Mobile The Netherlands BV	20408	NL PTT, NL KPN
TELFORT B.V.	TELFORT B.V.	20412	NL Tlft
T-Mobile Netherlands	T-Mobile NL	20416	TMO NL
Orange Nederland N.V.	Orange Nederland N.V.	20420	Orange
<b>Norway</b>			
Telenor Mobil	TELENOR	24201	TELENOR
NETCOM AS	NetCom	24202	N COM
<b>Poland</b>			
Polkomtel S.A	PLUS GSM	26001	PL-PLUS
Polska Telefonia Cyfrowa	Era	26002	Era
PTK Centertel	IDEA	26003	IDEA, PL IDEA or PL 03
<b>Portugal</b>			
Vodafone Portugal	Vodafone	26801	voda P
Optimus Telecomunicacoes, S.A	OPTIMUS	26803	P03, P OPTIMUS, OPTIMUS
Telecomunicacoes Moveis Nacionais S.A	TMN	26806	P TMN, P TELEMovel

Operator name	Network name	ID code	On mobile phone
<b>Spain</b>			
Vodafone Espana S.A.	Vodafone	21401	E VODAF
Retevision Movil S.A	AMENA	21403	RET MOV, E 03, AMENA
Telefonica Moviles Espana S.A.	MOVISTAR	21407	MSTAR
<b>Sweden</b>			
TeliaSonera Mobile	TELIA MOBILE	24001	TELIA
HI3G Access AB	3	24002	3
Tele 2 AB	COMVIQ	24007	IQ
Vodafone Sverige AB	Vodafone	24008	voda SE
Swefour AB	Swefour AB	24010	Spring
<b>United Kingdom</b>			
O2 (UK) Limited	O2	23410	O2 -UK
Vodafone Ltd	Vodafone	23415	Voda
Hutchison 3G UK Ltd	3	23420	3 UK
T-Mobile (UK) Limited	T-Mobile UK	23430	TMO UK
T-Mobile (UK) Limited	T-Mobile UK	23431	TMO UK
T-Mobile (UK) Limited	T-Mobile UK	23432	TMO UK
Orange PCS Ltd	Orange	23433	Orange

